



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Fishes found in the Fresh Water but said also to exist in the Sea.

Sangka.	Large fish (Scowberidæ).
Ika ndamu.	Red fish.
Yawa.	
Mbati Kasivi.	Called Matamba on the coast and said to be daily taken down with the floods. (Percidæ.)
Vetakau.	A broad fish.
Kanathi.	A mullet (?)
Nggiawa.	(Percidæ).
Reve, or wruwru.	(Percidæ).
Vuvula, or singa.	(Large).
Yawa.	(In ponds)—when large it is called Wailangi. One is said to have been caught at Navuso 5 feet long and 3 in girth (?).
Ika Ndroka.	(Percidæ).

List of Macrourous Crustacea.

Mothe.	{	Transparent Palæmonidæ, believed by the natives to be different stages of the same species, but such is not the case.
Lua.		
Kandikandi.		
Ura ndamu.		
„ mbala.		
„ mbati.		
„ „ tambua.		At Vuni Mbua.
„ ndina.		
„ ivi.		
„ vulu.		(Atya).
„ loa.		
„ ndu.		
„ ngauvithotho.		
„ ngasau.		

The Mollusous Genera have been already sufficiently noticed in the text.

XIV.—*Description of Vancouver Island.* By its first Colonist, W. COLQUHOUN GRANT, Esq., F.R.G.S., of the 2nd Dragoon Guards, and late Lieut.-Col. of the Cavalry of the Turkish Contingent.

Read, June 22, 1857.

1. *Position, General Aspect, and Geological Structure.*

THE position and natural advantages of Vancouver Island would appear eminently to adapt it for being the emporium of an extended commerce. It contains valuable coal fields, and is covered with fine timber. The soil, where there is any, is rich and productive; the climate good; and the singular system of inland seas by which it is environed teems with fish of every description. Capable of producing those very articles which are most in demand in neighbouring countries, and offering, in its numerous safe and





commodious harbours, almost unrivalled facilities for import and export, it would seem to require but a little well-directed exertion of energy and enterprise to make it the seat of a flourishing colony.

The island is situated between the parallels $48^{\circ} 20'$ and 51° north latitude, and in west longitude between 123° and $128^{\circ} 20'$; its coast trends in a north-west and south-east direction; its extreme length from Cape Scott to Point Gonzalez being 270 miles, with a general breadth of from 40 to 50 miles; its greatest breadth is 70 miles, being from Point Estevan, at the south entrance of Clayoquot Sound, to Point Chatham, at the northern extremity of Discovery Passage; its least breadth, namely from about 20 miles south of Woody Point to Port Bauza, is 28 miles. There are, however, several places in which the arms of the sea, running inland from opposite sides of the island, approach very closely to each other. In the north, for instance, from Beaver harbour to Koskiemo, the extremity of an inland loch, running in immediately opposite, the distance is only 8 miles. From the Alberni canal on the west, to Valdez inlet, called by the natives Saatlam, on the east, the distance is only 22 miles; again, in the extreme south, a rough journey of about 7 miles brings the pedestrian from Sanetch, on the Canal de Haro, to the end of Esquimalt harbour on the Straits of Fuca; and from Nitinat, between Barclay Sound and Port St. Juan on the south-west, in a day and a half the savages pass over to the valley of the Cowichin in the south-east. The general aspect of the country throughout the island from the seaward is peculiarly uninviting. Dark frowning cliffs sternly repel the foaming sea, as it rushes impetuously against them, and beyond these, with scarcely any interval of level land, rounded hills, densely covered with fir, rise one above the other in dull uninteresting monotony; over these again appear bare mountains of trap rock, with peaks jagged like the edge of a saw, a veritable Monserrat, forming a culminating ridge, which may be said to run with little intermission, like a back bone, all down the centre of the island, from the northern to the southern extremity; nor does a nearer approach present one with many more favourable features in the aspect of the country.

The whole centre of the island—as far as it has been at present explored—may be said to be a mass of rock and mountain, and of the little available land which is found in patches along the sea-coast, by far the greater part is densely covered with timber, the removal of which would be so laborious as to make the bringing of the said land under cultivation scarcely a profitable undertaking. The little open land which there is, however, is in general rich, and had the British Government thrown the island open to the exertions of individual enterprise, the greater portion of such open land

would doubtless, ere this, have been settled. It is not, however, always that the wooded land is capable of cultivation along the sea-coast; on the contrary, the reverse is the rule; the greater portion of the land on the southern, and nearly all on the western coast, as far as it has yet been examined, consisting of barren rock, barely affording sufficient holding ground to the stunted timber with which it is covered.

The geological structure of the island corresponds with its physical aspect. The prevailing formation is that generally known as the gneiss and mica-schist system: these rocks produce a broken and rugged surface, without being attended with any picturesque effect. Along the sea-coast on the eastward, from Nanaimo to Sanetch, the principal surface rock is sandstone of the coal formation. From Sanetch to Esquimalt gneiss prevails, diversified with beds of dark-coloured limestone. Westwards of Esquimalt mica slate occurs, whilst from Rocky Point to Port St. Juan the principal rocks on the sea-coast belong to the clay slate and greywacke systems, interspersed however at intervals, few and far between, with cliffs of a white coloured close-grained sandstone.

These strata of sandstone lie generally tolerably level, with a dip of about 7° to the south; they are covered with beds of lightish yellow finely laminated clay, of from 100 to 20 feet in thickness, over which is generally to be found a layer of from 2 to 4 feet in thickness of rich black vegetable mould; the sandstone beds do not occur often on the south coast, seldom extend at a time for more than 2 miles along it, and in no case that I know extend beyond that distance into the interior. At Soke harbour the rocks on the east side are a coarse-grained highly-indurated greywacke, interspersed with crystals of hornblende and iron pyrites; on the west side a tolerably level bed of sandstone reaches to a distance of about 1 mile inland; at the back of this rises an amorphous mass of hornblende schist, which reaches an elevation of 700 feet. Ascending the bed of Soke river, we pass for a mile and a half through the sandstone strata, these again give place to greywacke. About $4\frac{1}{2}$ miles up, a dyke of greenstone runs across our course, over the irregular traps or steps in which the river precipitates itself in a series of foaming cataracts: this irruptive mass runs in a north-west south-east direction, and is about 2 miles in thickness. After passing it, the slaty formation again presents itself, the quality being a close-grained chlorite slate of a bright green colour. The stratification is not clearly defined in this rock, but the general dip may be about 30° , the direction being to the south-west. At 10 miles up the river we come to a beautiful blue fine-grained argillaceous slate, with the cleavage very clearly and regularly expressed. The surface of these rocks has been so broken and

distorted by some great subterranean convulsion, that the apparent plane of stratification is sometimes horizontal, at others quite perpendicular to the horizon. Some 3 miles beyond the commencement of this formation, we come to a trough of greywacke slate, containing a lake of about 6 miles in length, and with a general breadth of a quarter of a mile. On either side of this, with little or no level land intervening, rise steep mountains to a considerable elevation—one of those on the eastern side reaching an elevation of 2015 feet. The sides of this mountain are so entirely covered with detached blocks or fragments of granite, that it is impossible to see below them any solid foundation; on the top a level platform extends for some 300 feet in an oval shape. Although the rock contains aggregated crystals of quartz, felspar, mica, and hornblende, and no laminated structure is apparent, I am induced to call it a granitic variety of gneiss, partly because contiguous mountains decidedly exhibit the structure of the gneiss formation, and partly owing to the almost total absence of soil or any earthy substance—gneiss being a rock of much slower decomposition than granite proper: I have not indeed seen any pure granite on the island, except in detached blocks lying on other rocks along the sea-coast. These erratic blocks, sometimes of granite proper, but more frequently of syenite, are to be met with all along the sea-coast, in cubical masses of from 6 to 20 feet in thickness; they generally lie close to the sea shore, within a few yards of high-water mark; smaller blocks of similar quality are also found in the interior, frequently on the tops of the lower hills.

From the above particular account may be deduced a tolerably accurate idea of the general geological formation, on the south coast of Vancouver Island. It is, however, difficult to convey upon paper a correct impression of the interior, the sight of which, seen from the first eminence that he ascends, causes to the explorer a hopeless elongation of visage. The prevailing rocks in the higher parts of the island are gneiss and mica schist, in the lower greywacke and clay slate, the whole being interspersed and intersected in every direction by dykes of greenstone and hornblendic trap, the upheaving of which has produced such a distortion and dislocation to the surrounding strata as to give to the whole the appearance of a vast boiling mass, which had been suddenly cooled and solidified in its bubbling position. The hills are steep and rugged; the valleys narrow and shallow; the rocks are sometimes bare, sometimes covered with a scant growth of timber: but in no case, that I have seen, does the surface of the interior of the island, either in its nature or its position, admit of being applied to any more useful purpose than to furnish matter for the explorations of a geologist.

From these regions, which are wild without being romantic, and which, from the absence of any bold outline, never approach to the sublime or the beautiful, the traveller loves to descend to the smiling tracts which are occasionally to be met with on the sea-coast. In one of these Victoria is situated, and it is from a visit to it, and its neighbourhood, that tourists deduce their favourable ideas of the general nature of the island.

2. *History of Settlement and Population.*

In 1843, early in the spring of the year, the Hudson Bay Company first effected a settlement in Vancouver Island. They landed about forty men, under charge of Mr. Finlayson, and in a very short time constructed a picketed enclosure, containing the buildings usually appropriated by the Company to the storing of goods and to the accommodation of their servants. They landed at Victoria, called then by the natives Tsomus, from the name of the tribe which lives there : here they met with no opposition from the Indians, and, as soon as they had finished their buildings, they commenced bringing sufficient land under cultivation for the support of the establishment.

As in settling there no idea was entertained by the Hudson Bay Company beyond starting a fresh trading post with the Indians, the establishment remained in *statu quo* until the year 1849, when the granting of the whole island to the Company opened out a fresh field for their exertions ; and about this time, viz., in the commencement of the year 1849, there were some 80 acres in cultivation round Victoria. The draft of the charter for the granting of the island to the Company was laid before Parliament in August, 1848, but the grant, however, was not confirmed until the commencement of the year 1849 ; and it was then given to the Hudson Bay Company under condition that, within five years, they should have established satisfactory settlements on it for the purpose of colonization.

The conditions under which the Company proposed establishing a colony were as follow :—They were to sell land at the price of 1*l.* per acre to all intending settlers, who were moreover to be obliged to bring out five men at their own expense, from England, or other British possession, for every 100 acres which they purchased, being at the rate of one man for every 20 acres ; no single individual coming out was to be allowed to purchase more than 20 acres. Of the money arising from the proceeds of the sales of that land, 18*s.* 6*d.* in every pound sterling was to be applied to the benefit of the colony, only 1*s.* 6*d.* in the pound being reserved to the Company to remunerate them, as it were, for their undertaking the agency of the disposal of the land. Colonists were to be allowed

to work any coal they might find on paying to the Company a duty of 2*s.* 6*d.* per ton, and a duty of 10*d.* per load was to be paid on all timber exported. In June, 1849, the first batch of colonists under this system arrived, and they consisted of eight men brought out by myself; and from that day to this not a single other independent colonist has come out from the old country to settle in the island—all the other individuals, who have taken up land, having been in the employ of the Company, and brought out to the country at its expense.

In the Harpooner, in June, 1849, there were brought out by the Hudson Bay Company eight miners to work their coal mines at Fort Rupert, at the northern end of the island, who were to be paid a certain salary, from 50*l.* to 60*l.* per annum, and, in addition, were to get an extra allowance for every extra quantity of coal they got. There also came out in the same vessel two additional labourers to the Hudson Bay Company's establishment. On my arrival in the island all the land in the neighbourhood of Victoria and Esquimalt, which comprised some 40 square miles, and contained nearly all the available land then known, was reserved by the Hudson Bay and Puget Sound Companies. Matchousin, distant 11 miles from Victoria, was pointed out to me as the nearest unclaimed spot on which I could settle; not approving of which, as there was neither a harbour nor mill-power there, I was recommended to proceed to Soke, distant 26 miles.

The ship *Norman Morrison*, in 1850, brought out about eighty souls, who were entered as immigrants. In 1851 the *Tory* arrived with about 100 hired labourers. Of these parties, shipped as emigrants, the majority find their way to the opposite American side; and of the 400 men who have been imported in all during the past five years, about two-thirds may be said to have deserted, one-fifth to have been sent elsewhere, and the remainder to be at present employed on the island. By the Hudson Bay and Puget Sound Companies there are at present employed 45 at and in the neighbourhood of Victoria, 37 at Nanaimo, and 20 officers and men at Fort Rupert.

The population of the Island in the end of the year 1853 was about 450 souls, men, women, and children; of these, 300 are at Victoria, and between it and Soke; about 125 at Nanaimo; and the remainder at Fort Rupert.

3. *Distribution of Land, Nature of Soil, Crops, Climate.*

The gross quantity of land applied for in the island up to the end of the year 1853 was 19,807 acres and 16 perches, of which 10,172 had been claimed by the Hudson Bay Company, 2374 by the Puget Sound Company, and the remainder by private individuals. These lands may be classed as follows:—

	A.	R.	P.
1. Land registered without any payment being made thereon	9,829	0	0
Of this 7120 acres have been registered by the Hudson Bay Company, the remainder by private individuals.			
2. Land registered and deposit paid thereon of a dollar, or 4s. 2d. per acre, the claimants binding themselves to forfeit that deposit, or pay up the full price of 1l. per acre on receiving the proffer of title-deeds ..	1,211	2	0
Value received 784l. 15s.			
All this land is claimed by private individuals, and occupied by the same, ten in number.			
3. Land for which the full price of 1l. per acre has been paid	8,766	2	16
Value received 8766l. 15s.	19,807	0	16

Of this land 1696 acres 2 roods and 16 perches are occupied by individual settlers, 16 in number; 973 acres claimed by absentees and unoccupied; 471 acres occupied by the agents of absentees; 3052 acres reserved by the Hudson Bay Company; and 2574 acres occupied by bailiffs of the Puget Sound Company, 4 in number. Altogether, under the three above classes, there are 53 different claimants of land, about 30 of whom may be said to be *bonâ fide* occupying and improving their land. The system of paying a deposit of 1 dollar per acre, only lately introduced, has now been abolished, and parties have to pay at the rate of 1l. per acre previous to occupying their claims.

Of the whole 19,807 acres claimed or occupied as above, there are only between 480 and 500 acres now, at the end of the year 1853, actually in cultivation. All the land now under cultivation, with the exception of some 30 acres at Soke, and about 10 acres at Matchousin, is within the sections of land originally claimed by the Hudson Bay and Puget Sound Companies. The soil under cultivation is sometimes a rich vegetable mould, in other places a clayey loam, and in others somewhat sandy. It produces excellent wheat crops. Mr. Baillie has raised 44 bushels to the acre off some land which he farms for the Hudson Bay Company, about 3 miles from Victoria. Heavy crops of peas have also been raised in the same place. I myself, at Soke, raised excellent crops of wheat, barley, oats, peas, beans, turnips, and potatoes; Swedish turnips in particular did remarkably well, and produced a very heavy crop. I imported all the seed, except for wheat, peas, and potatoes, from Van Diemen Land, through the Sandwich Islands. In all arable portions of the island the land is favourable to the production of green crops of every description; vegetables also grow particularly well, and esculent roots of all sorts attain a great size. Oats have generally been a failure, probably owing to their having been sown too late in the season.

The climate, as usual on the coast of the Pacific, is divided into two seasons of dry and rainy, or, as Père Accolti, the Jesuit priest of Oregon, expressed it, "Huit mois d'hiver, et quatre d'enfer;" he added two months, however, to the winter for the benefit of Oregon. On Vancouver Island it generally rains and snows from October to March, and during the rest of the year a parching heat prevails, which dries up all the small streams. In the commencement of autumn dense fogs prevail, enveloping everything in obscurity, and preventing, as I think, the rays of the sun from having a due vivifying effect on the crops. These fogs also tend to absorb the dews which would otherwise fall; the consequence is, that all the crops which are not taken in early are apt to be parched up, and run to straw for want of moisture.

Although the thermometer sometimes reaches a height of 90° and 92°, that is, only during the few hottest days in August, the usual thermometrical range during the dry season is from 60° to 80°. The natives all along the coast have a custom of setting fire to the woods in summer, which doubtless adds to the density of the fogs, and increases the temperature of the atmosphere. I have never seen a drop of rain fall from March till October; the seasons, however, are uncertain. Last year there was a very severe winter; a great deal of snow fell, and the Hudson Bay and Puget Sound Companies lost a considerable quantity of sheep and cattle, whereas during the winter of 1853-4 there have not been above 20 days of rain and snow altogether.

The prevailing winds along the coast in winter are from the south-east, varying from that to the south-west, and with occasional heavy northerly gales; the prevailing winds in the summer are from the north and north-west. Generally speaking, the climate is both agreeable and healthy; and not a single death that I am aware of has occurred among adults from disease during the six years that I have been acquainted with the island.

4. *Trip round the Island, comprising description of Coal Mines, and all other Establishments.*

The most northern station occupied by white men is Fort Rupert. This post, situated on Beaver harbour, on the north-east corner of the island, was established by the Hudson Bay Company in 1849 for the purpose of working the coal which they were led to suppose existed in large quantities in its vicinity, as a quantity of superficial coal had been worked there by the Indians, which, however, was of loose and open structure, interspersed with slate, and of so inferior a quality that they have not yet been able to find a market for the whole of it. All efforts to find workable coal under the surface at Beaver Harbour have hitherto proved

totally unsuccessful; and the country in the neighbourhood has been so thoroughly examined by Mr. Gilmour, that there appears little reason to hope for any further discoveries in that quarter. A shaft was sunk to the depth of 90 feet by the Messrs. Muir, the miners who were first sent out from Scotland by the Hudson Bay Company; they principally passed through sandstone and shale, and passed through one or two little seams of coal, the thickest not above four inches in thickness. This shaft was continued by Mr. Gilmour to a depth of 120 feet, until he struck the whinstone rock, when he gave up farther search as hopeless. Another bore was sunk directly at the back of Fort Rupert to a depth of $47\frac{1}{2}$ fathoms. Two other bores were sunk behind Fort Rupert, towards the interior; one some 4 miles to the north-west, where the borers were stopped by loose quicksand at a depth of 30 fathoms; another two miles to the south-west to a depth of 40 fathoms; again 10 miles distant from Fort Rupert, along the sea-coast, two bores were sunk through sandstone to depths of 47 and $47\frac{1}{2}$ fathoms respectively, without any signs of workable coal; these were sunk at some distance back from the shore. Close to the shore two pits were sunk, one 17 the other 30 fathoms. Nearly all these bores were sunk down until the whinstone rock was struck, and in none of them were they successful in discovering any workable seam of coal, although several small veins were passed through, the thickest not exceeding 6 inches. There are now no miners at Fort Rupert, and the establishment consists of 20 officers and men. As the Indian trade there is unimportant, and as it was principally fixed on with a view to the coal, it is probable that it will ere long be abandoned.

There is some very fine timber in the neighbourhood of Fort Rupert, and a considerable quantity of it has been cut for exportation as spars and masts for vessels. Coasting along Vancouver Island to the south-east, a canoe or steamer will lead us through Johnson Strait and Discovery Passage to Cape Mudge. This strait is almost impassable to a sailing vessel, except with great danger, as a tremendous tide runs, and there is no good anchorage nor place of shelter along the coast. Cape Mudge was lately found by Mr. Pemberton to have been placed, in charts previously constructed, 14 miles too far to the westward. In its neighbourhood the savages report some prairie-land, but I am not aware of any having ever been seen there by a white man. The coast from Beaver harbour to Cape Mudge, and for some miles to the south, appears rocky woodland, quite unavailable for purposes of settlement. Fifteen miles south of Cape Mudge we come to Point Holmes, where there are some 10 or 12 miles of rich open prairie-land close to the coast, offering probably a more favourable field for "agricultural" settlement than any other section of land

which has as yet been discovered on the island. South of this the coast again assumes its natural sterility. Between this and Nanaimo we come to Valdez-Inlet, called by the natives "Saatlam." This may probably become a place of some importance, as it is the nearest point to the end of the Alberni Canal, said to run from Barclay Sound on the opposite or west coast of the island. No favourable place for settlement offers itself on the coast between this and Nanaimo, in lat. $49^{\circ} 15'$, long. $123^{\circ} 45'$. Here the Hudson Bay Company has established one of their most flourishing posts. The coal at Nanaimo was first discovered by Mr. Joseph M'Kay, in May, 1850, who was directed to it by the Indians of the neighbourhood. They had seen a small seam on Newcastle Island, about 8 inches thick, and mentioned having seen some black stuff on the land opposite, called Commercial Inlet. This proved to be the outcrop of the Douglas seam, which was there only about $3\frac{1}{2}$ feet thick, the remainder being worn away by denudation; its general thickness is from 6 to 7 feet, with from 8 to 10 inches of fire-clay running through the centre; the dip of the Douglas seam is 45° ; its direction is to the south-west.

On the 15th September, the same seam, called the Douglas seam, was discovered on Newcastle Island, and the Indians soon got out 200 tons. A pit was commenced by Mr. Gilmour, with 10 regular miners, on the 17th September, and a shaft sunk to a depth of 50 feet, being through 12 feet of alluvium, 8 feet of sandstone, and 30 feet of shale; the situation of the pit is at the north-west extremity of Nanaimo harbour. Here they struck another seam of from 6 to 7 feet in thickness, lying on conglomerate; they are now regularly working this seam in several parallel galleries, extending to a considerable distance, already under ground. The seam here runs nearly level, with a dip of only some 7 degrees to the south-west; the greatest quantity of coal that has been raised from it was at the rate of 120 tons per week with 10 regular miners.

The same seam, "the Douglas," which was worked by the Indians on Newcastle Island and Commercial Inlet, has been discovered by Mr. M'Kay, who plied the pick and shovel indefatigably in search of it, cropping out on a peninsula at the upper end of Nanaimo Harbour, to this they are working a gallery on a level from the beach, and have already progressed several yards with it; the gallery is some 6 feet high and 4 or 5 feet broad. It is solidly lined and roofed with squared timber; they excavate at the rate of about 1 yard per diem, one miner picking and propping, and two shoveling and carrying the dirt, &c., away.

Work has thus been done at four different places: by the Indians at Newcastle Island and at Commercial Inlet, and by miners on

the peninsula above mentioned. These were all on the same seam of coal, which is called the Douglas ; the greatest thickness which has been anywhere seen of it is 8 feet, its average may be 6 ; it is distinguished by containing 8 inches of fire-clay, and in the lower part of it are some 7 or 8 inches of cannel coal. In the other seam through which the pit is sunk, and which is the only one now worked, the coal is of a precisely similar quality, though without the fire-clay. Doubts having been entertained as to whether all these seams were not identical one with another, though raised by various causes, in different places, and at different elevations, a bore has been sunk close by the pit to endeavour to discover whether the other seam, called the Douglas, does not exist below ; they have already gone through some 16 feet 9 inches of conglomerate, and 45 of soft sandstone with layers of shale ; they then reached a coal of similar quality to that in the Douglas seam, and after boring 20 inches through it came to a fire-clay, through which they had gone 12 inches when the writer of this letter left on the 20th December. These strata lie at a considerable inclination, and are nearly similar to those which overlie the Douglas coal at Commercial Inlet, which are as follows :—

Conglomerate, 20 feet ; siliceous sandstone, 8 feet ; shale, 2 feet ; alternate layers, shale and sandstone, 14 feet ; sandstone, 2 feet ; shale, 1 foot 4 inches ; sandstone, 2 feet ; shale, 4 inches ; sandstone, 4 feet. Total : 53 feet 8 inches.

It is therefore probable that the coal which has been reached in the bore will be found to be identical with the Douglas seam, in which case there will be two seams, each of an average depth of 6 feet, overlying each other, at an interval of from 50 to 60 feet. The pit is situated within a few yards of the water-side, and vessels drawing 16 feet water can anchor close to it ; the Hudson Bay Company have brought out an excellent engine, by which they raise the coal, and pump out such water as is accumulated in the pit ; they are not much troubled with water, and all the pumping that is necessary does not keep the engine going above a quarter of the time.

It is the opinion of the head miner, that coal may be found anywhere, within a circumference of 2 miles from Nanaimo, at a distance of 50 feet below the surface. Altogether there are few places to be met with where coal can be worked as easily and exported as conveniently as from Nanaimo, and it will be the Hudson Bay Company's own fault, if they do not make a very profitable speculation of their possessions there.

Altogether about 2000 tons of coal have as yet been exported from Nanaimo, of which one half may be said to have been worked and loaded by Indians, the other worked by the miners. The first coal exported from the pit was brought by the William to San

Francisco, in May, 1853; it is sold by the Hudson Bay Company at Nanaimo at eleven dollars per ton, the Indian women bringing it alongside the vessels in their canoes. At San Francisco it now (January, 1854) sells at 28 dollars per ton. The greatest objection is that it burns too quickly, and leaves behind a good deal of slag, which makes it difficult to keep the furnaces clean; it is, however, a very strong rich coal, and full of sulphurous matter.

Nanaimo altogether is a flourishing little settlement, with about 125 inhabitants, of whom 37 are working men, the remainder women and children; there are about 24 children at a school presided over by Mr. Baillie. There is good anchorage all over the harbour, which is commodious, and sheltered from all winds; there is a rise and fall of 15 feet at spring tides, and of about 12 feet at ordinary times; it is an excellent place to lay up and repair vessels; the bottom is in general a soft mud. About 24 houses have already been put up by the Hudson Bay Company, and several more are in process of erection. For food they are principally dependant on the Indians, who bring sometimes as many as 63 deer in a day from Schesatl or Jarvis-Inlet, situated a little to the north of Nanaimo, and opposite to it on the main land. The land in the immediate neighbourhood is poor and sandy, but there is a prairie about 2 miles off of some 3 or 4 miles in extent, on which the soil is rich and the surface tolerably level. The Company have claimed 6000 acres, which may be said to include most of the available land in the neighbourhood; all the remainder is covered with timber, and although there is no open land, there may be some 2 or 3 miles of land which is level, between the sea coast and the mountains. At the south west extremity of the harbour, a river flows in; it is about 50 yards wide at the mouth, with an average depth of about 5 feet, and a current of 4 knots per hour. About 7 miles north-west of Nanaimo along the coast, is another excellent harbour, called 'Tutuis,' where also the carboniferous strata prevail, and there is a seam of coal, reported by the Indians to be some 4 feet thick.

South of Nanaimo there are 3 ranges of islands, running parallel with each other, between the mainland of Vancouver Island, and what is generally laid down as such on all charts hitherto published. The channels between these islands are too intricate for a sailing vessel of large size to attempt with any certainty or security. The outer one, between 2 ranges of islands, is probably the best; it expands occasionally into open bays, some 4 miles wide, but is twice contracted into narrow channels, through which the tide runs with frightful velocity. It is quite a mistaken (though general) idea that there is good anchorage throughout these inland passages. I can only say from experience that I found no bottom at 20 fathoms in any part between Nanaimo and

Sanetch. As a general rule, wherever the navigator can see a clay bank on the shore, he may there be certain of finding anchorage ; where the shore is rocky, anchorage is uncertain. The bottom throughout these passages is rocky and uneven, and in the narrows the current sets a vessel towards the rocks, without her helm having any power to guide her away from them.

There is no available land between Nanaimo and Sanetch, a distance of 40 miles ; all the sea-board consists of rocky woodland, and the mountains come down close to the coast ; there are some spots on the opposite islands which might be brought under cultivation, the whole, however, is at present densely covered with timber. Sanetch is a long arm of the sea running inland some 10 or 12 miles ; there is not good anchorage, the water being deep, the arm, however, is perfectly land-locked, sheltered from all winds, and by going close to the shore vessels may anchor in tolerably shallow water. Within 400 yards of the shore in many places there is no bottom at 20 fathoms ; the country all around is densely wooded ; there are 3 or 4 small prairies ; perhaps, taken altogether, some 3 square miles in extent. The savages are numerous, but quiet and peaceable, and any one settling among them would find them very useful. Within an average distance of a mile all round the arm the mountains rise in a perpendicular manner, which quite forbids all hope of a settlement in the interior. At the north of the arm, however, on its northern shore, the Cowitchin River discharges itself. This is the largest river yet known on the island, and flows through a long narrow valley containing a good deal of open land, and a considerable portion of available woodland. About 3 miles up the river there is an extent of some 10 or 12 miles, by perhaps half a mile broad, on either side, of rich open alluvial land ; this tract, next to the land at Point Holmes, is the most extensive uninterrupted tract of available open land yet seen on the island. About 20 miles up, the Cowitchin River, in the month of May, is 160 feet wide, and from 3 to 4 feet deep, with current at rate of 3 knots per hour ; there is a little level and some open land occasionally appearing on its banks here ; the soil, however, is poor and useless and overflowed by the water in winter. The river takes its rise from a large lake in the centre of the island, it runs in a south-westerly direction ; the source of it is not many miles from Port St. Juan. From Sanetch, rock and mountain again take up the sea coast until we arrive at Gordon Head, some 15 miles to the south, when the presence of clay cliffs on the beach betokens the probability of some available land existing in the interior : from here to Victoria across the distance is only 6 miles ; round the coast it is considerably longer. In the neighbourhood of Victoria there are altogether about 7 square miles of open land on which the great majority of settlers

above alluded to are located; besides the open land, there may be in the district of Victoria about 10 square miles of available woodland. Victoria itself is situated on a small but well sheltered harbour; the entrance is intricate and the harbour cannot be said to be suitable for large vessels; the village consists of some 60 houses, principally log cabins. Within a pallisaded enclosure are the stores of the Company, and buildings appropriated to the residence of their usual clerks, chief traders, &c. Besides these, their chaplain the Rev. R. J. Staines resides here; in addition to his clerical duties, he and Mrs. Staines keep a school for the education of the children of the officers of the Company; this school is exceedingly well managed, and is calculated to have a most civilizing influence on the future prospects of the island. At Victoria also resides Mr. Douglas, chief factor of the Company, and governor of the island.

About 6 miles westward of Victoria is the harbour of Esquimalt; a safe and commodious harbour for vessels of all sizes, and combining the advantage of sufficient shelter, with that of an open entrance, into which a line-of-battle ship might beat without difficulty.

Between Victoria and Esquimalt may be altogether 200 acres of prairie or open land, on which three bailiffs of the Puget Sound Company are established; they have little or no land under cultivation at present; 25 acres will, I think, cover the total quantity between the three; they have, however, erected good substantial farm-buildings of wood, and probably next year will have brought a good deal more land under cultivation.

There may be about 350 acres of prairie or open land in the neighbourhood of Esquimalt harbour to the westward; all the remaining land between it and Matchousin is woodland, in some places improvable, but generally worthless.

Rounding William Head, where there is a little patch of open land, occasionally browsed on by sheep belonging to the Puget Sound Company, we come, at the distance of five miles westward of Esquimalt, to Matchousin, where we have some 620 acres of fine open land; generally speaking, however, the soil is poor and sandy, and neither produces grasses nor crops with much luxuriance. Matchousin is an open roadstead, sheltered from the north-east, but open to the south and west: there may be about 11 acres now under cultivation in the open land there. At Matchousin is the vestige of some ancient encampment, which an antiquary of enthusiastic imagination might call a very proper agger or vallum, with its corresponding ditch or fossa. The agger is somewhat worn down, but the fossa is clearly discernible some 12 feet in depth and 15 in breadth, extending in an oval form, round three sides of what probably was an intrenched camp, or castra æstiva of the Spaniards;

the fourth side is occupied by a steep clay cliff abutting on the sea beach. The Indians have no tradition concerning it, and not being at a good fishing station, it is more than probable that it was occupied by white men. One or two other such remains of ancient camps exist along the south coast, but we have neither tradition, history, nor internal evidence to guide conjecture as to the original purposes for which they were formed. On leaving Matchousin, dreary rock again becomes the order of the day on the sea coast, and leads us round Albert Head into Pedder Bay, a nice safe little harbour, running about 3 miles inland; at the head of it are two small streams, and just sufficient available open land to swear by. On the west side of Pedder Bay is a fine open prairie extending nearly across to Becher Bay. It contains some 700 acres, and is interspersed with oak trees; the soil is rich and it is well watered, there being several springs throughout it. The land is level, and consists of a rich black mould, some three feet in depth, with a subsoil of yellow clay lying upon mica slate.

Rounding Rocky Point, or Bentinck Island, we come to Becher Bay. This is an open bay, about $2\frac{1}{2}$ miles wide at the entrance, and the same in depth, surrounded by the most hopelessly desolate-looking and useless rock and mountain, which it is possible to imagine. In a small bight at the western extremity, where a little basin of sandstone exists, traces of coal have been discovered and some small pieces of coal found on the surface; no seam of coal has as yet been found; even if it exists at all, its extent must be very limited, and it must be at a very great angle of inclination. An enterprising fisherman from Orkney has established himself here, and last summer put up and exported 300 barrels of salmon, which he had traded from the Indians, and cured himself. This with 150 more barrels traded in the same place by the Honolulu Packet, constitutes all the salmon, the produce of the island, which has hitherto been exported from it. The Company have sent some from San Juan Island; a few hundred barrels, say 300 on an average yearly; and they export 2000 barrels from Frazer River to the Sandwich Islands, but they have not as yet however exported any that I am aware of from Vancouver Island.

In Becher Bay there is a good anchorage in 16 fathoms of water, behind an island opposite the Indian village: shelter may be had there from all winds. Leaving Becher Bay, or as the natives call it Chuchwaetsin, and proceeding along the coast, some 8 miles further to the westward, we come to Soke Harbour, passing meanwhile, as is too frequently the case in Vancouver Island, along the coast of a region, which, if it contain not some unheard-of mineral wealth, is really not worth the ink and paper which it would take to describe it.

On Soke Harbour the author of this paper originally established

himself. He brought about 35 acres under cultivation, raised a small stock of cattle, horses, pigs, and poultry, and built houses for himself and men, with a barn, farm-buildings and a saw-mill. He found the soil produce abundantly, when cultivated, any crops that can be grown in Scotland or England; he found no difficulty in establishing a friendly intercourse with the native tribe of savages, who were only about 60 in number. For two years he resided there, a solitary colonist; he then let his farm on lease to some of the men he had brought out with him, and went to visit a far country. On his return, he found his land thrown out of cultivation, and the greater part of his property destroyed; the remainder he immediately disposed of, and finally abandoned the country.

Soke is as perfectly sheltered a harbour as it is possible to conceive. The entrance is somewhat intricate and vessels will generally have to warp in and out; with a south-west breeze a vessel however can sail in without difficulty. A long sandy spit runs almost completely across the entrance, leaving only an opening of 300 yards; in this are three rocks, which, however, when known are easily avoided; the harbour runs northward for about two miles, with a breadth of about half a mile; it then contracts to a narrow passage, and then bends round to the east, where it expands into an open sheet of water, some 3 miles long by $1\frac{1}{2}$ or 2 broad, with a depth of from 4 to 6 fathoms nearly all over it. There are several shoals in the outer harbour: there is a bar with 20 feet of water running across just outside the entrance, and it can scarcely be said to be adapted to large vessels. The Lord Western, however, drawing 19 feet of water, loaded there last summer without difficulty. The general depth of the harbour is from 5 to 10 fathoms. Along the eastern shore there is little or no available land. At the extremity of the sheet of water above mentioned are the débris of a saw-mill built by the author of this sketch. Following the shore of the harbour we come to no available land until half way to the Indian village, which is situated at the bend above mentioned; round it are a few hundred acres of available woodland. At this point the Soke river discharges itself, which takes its source from two lakes, one about 12 miles in a direct line to the north, the other about 25 miles up; there are a few patches of open meadow-land near the mouth of the River, on which the Indians grow considerable quantities of potatoes. Small canoes can go up the river to a distance of three miles; there is a little level land along it at intervals for that distance, consisting of a rich alluvial soil, covered with a magnificent growth of timber; this land, however, where it exists at all, merely extends for a few yards back from the banks of the river, and beyond the whole country is utterly unavailable. From the mouth of the river all along the west coast of the harbour the

land is rich and level, and though at present covered with woodland, may doubtless some day be brought into cultivation. Near the entrance of the harbour, and running from it, across a small peninsula to the straits, is a small prairie of 315 acres, with an industrious Scotch family, who carry on a little farming, and supply piles and spars to shipping for the San Francisco market. The soil on the prairie is a rich black vegetable mould from 3 to 4 feet deep, with a stiff clay subsoil, resting on sandstone, and the surrounding woodland also consists of very rich soil. The extent of available land, altogether, in the neighbourhood of Soke Harbour, is very limited. Five square miles, of which 330 acres in all are open land and the remainder tolerably level woodland, will certainly comprise the whole. There are about 30 acres under cultivation.

The timber round the harbour is very fine and of several varieties; there are no less than six varieties of fir, and one of pine (*Monticola*), found high up the river; the timber suitable for piles near the harbour is nearly exhausted, a large quantity, however, still remains suitable for spars or square timber.

On leaving Soke, the eye has again to encounter rocky wastes, until after proceeding a distance of some 14 miles westward, where there is a little level woodland along the sea coast. Traces of coal have been found on a small river called by the natives *Quaachuka*, which here discharges itself into the Straits. The sandstone strata prevail along the coast here for some miles, and the quality of the sandstone is precisely similar to that found at Bellingham Bay; the colour is light and it is fine and close-grained; it is interspersed with small seams of coal, few of which are as much as an inch in thickness. Up the river, several detached pieces of coal, or rather of lipute, closely approaching coal, have been found lying on the surface, but the source from which they have come has not yet been discovered. Underneath the sandstone strata is a very remarkable fossil bed, the fossils are large and in perfect preservation, they are imbedded in a strongly indurated reddish clay. Among the fossils are *terebratula reticularis*, *spirifer striatus*, *productus semireticulatus*, and other fossils peculiar to the lower carboniferous strata.

From Soke for a distance of some 45 miles, there is no appearance of open land or prairie, neither with the above exception is there any available woodland, until arriving within 10 miles of Port St. Juan, the mountains coming down close to the seashore. Here they trend off a little to the northward, leaving a tract of level woodland, some two miles broad, between their base and the coast.

Port St. Juan is a fine harbour with excellent anchorage of from 3 to 5 fathoms all over it: it is, however, much exposed to the south-

west. It runs about 4 miles inland and would make an excellent fishing station; the fish there being numerous and in great variety. Sturgeon, turbot, salmon, herring, cod, and flounders are caught by the natives. There is good shelter for vessels round a point on the eastern side of the harbour, towards its northern extremity; but there is no prairie land round Port St. Juan. The timber is very fine, and suitable either for piles or spars.

On a raised sea beach, with scant sandy soil, extending with a breadth of from 300 to 500 yards all along the north-east end of the harbour, there is a considerable growth of coarse grass, which would afford good pasture for black cattle.

A fine seam of coal has been discovered between Port St. Juan and Cape Bonilla. It is however almost worthless, as, though it crops out on the sea coast, there is no shelter for vessels near it, and no possibility, except at considerable expense, of making a road between there and Port St. Juan.

At Port St. Juan there is a native population of about 150, called the Patcheena Sinatuch, who are a quiet race, living by fishing, and favourable to intercourse with the whites.

Twenty-five miles westward of Port St. Juan, we round Bonilla Point, and emerge from the Straits of Fuca into the open sea. A strong current sets along the coast in a north-west direction, particularly during winter; so strong is this current that in making the coast in the month of October, the Lord Western, a British ship, was in two days carried 43 miles to the westward of where her reckoning placed her. Northward of Point Bonilla, is an inland saltwater loch, to which, however, no passage practicable for vessels exists from the sea; there is merely a narrow, shallow entrance, for canoes and small boats. In the interior it expands some two or three miles in extent, and runs inwards for several miles; from its extremity a passage exists to the Cowitchin Valley to which the savages travel in $1\frac{1}{2}$ days. Round it are settled some 300 savages called the Nitteenatuch or Nitteenats. They are expert whale fishers, and in one season killed as many as 24. There is very little available woodland round this locality and only a small patch of open land extending to some 40 acres.

Fifteen miles northward of Cape Bonilla is Cape Carrasco, the southern point of the entrance to Barclay Sound, a spot concerning which all Indians in general, and Flattery Jack (chief of the Macaws) in particular, seemed to have delighted in telling the most atrocious falsehoods, to the ears of admiring investigators. No white man had visited Barclay Sound subsequent to Meares in the beginning of this century, until the arrival of a small American vessel in the summer of 1852. This vessel in one week loaded with 120 barrels of salmon, which the natives brought alongside in their canoes. On its being visited by the author of this sketch, in

the spring of 1853, in the Honolulu, all accounts of the beautiful prairie-land, with which its shores were said to be adorned, turned out to be entirely fabulous. Suspicions were thrown even on the existence of the Alberni Canal; it is to be hoped, however, for the sake of the good report of the resources of the island, that these latter suspicions may be found by more complete explorers at some subsequent date to be without foundation. One thing is clear, not an iota of confidence is to be placed in Indian reports, whether pro or con.

Barclay Sound is a broad bay open to the south-west; its breadth at the entrance is about 15 miles and it runs inland with nearly the same breadth to a distance of 17 miles. A number of rocky islets stretch across the entrance; leaving, however, two broad open channels, both towards the south-east side: one of these channels is about $1\frac{1}{2}$ miles broad, it is close to the eastern shore of the sound; the other is about $3\frac{1}{4}$ miles broad, and is a little farther to the north-west; it cannot be mistaken, being clearly visible from the outside, and also distinctly marked by a very singular rock, with only three fir trees on it, appearing precisely like the three masts of a vessel. The channel is immediately to the north of this rock, and the sound is more open after entering within it. There are, however, a few islands interspersed all over it, most of them inhabited by small fishing families of the savages. There is anchorage near all these islets, with good holding-ground, but the water deepens suddenly, and vessels in search of anchorage have to stand very close in-shore. The Honolulu anchored in ten fathoms water within 60 yards of the beach, under the lee of an island called Satchakol, about two miles within the Ship-Rock above mentioned.

On the eastern shore, about 4 miles from the outside, there is a small inlet, called by the natives "Tsuchetsa," with a small tribe living on it; the chief of whom is called "Klayshin." The inlet is about 300 yards broad at its entrance, and branches out into two arms from 70 to 80 yards wide each. The first of these arms extends in an easterly direction for about one mile and a half, sometimes narrowing to a breadth of 40 yards, sometimes expanding to 200, it ends in an open bay 500 yards broad. The land on either side is broken and rocky, though not high; there appears little soil, and the timber is stunted and scrubby. There is no open land either on this or on the other arm, which runs in for about a mile to the south, parallel with the shores of the sound. The land on either side of that arm is level woodland, but the soil is not rich, and the wood worthless, being principally stunted *Canadensis*. The Indians declared that there was no other arm of the sea, running inland from Barclay Sound, and the author approached close to the supposed position of the Alberni Canal, without seeing any signs of such an opening; he was prevented

making a minute examination by darkness coming on, but from what he saw, he believes the allocation of the Alberni Canal to be an error. Generally speaking the country all round Barclay Sound is broken and rocky, thickly covered with useless wood, and unfit for cultivation or settlement. In the country of the Schissatuch, there are some clay cliffs on the coast, similar to those on Puget Sound, but the hills come close down to the water side, and there cannot be a great extent of level country, if there be any at all. There is no truth in reports which have been circulated of there being coal on Barclay Sound; the Indians, however, describe some coal as existing at Munahtah in the country of the Cojuckle-satuch, some three days' journey into the interior, at the back of Barclay Sound. The coal is described as a seam four feet thick, cropping out from the top of a high hill: its position, from the appearance of the country, can scarcely be a place from which it would be possible to export the mineral. The inhabitants of Barclay Sound may be about 700 in all. They are a poor miserable race, are very much divided both into tribes and small families. They are a harmless race, and live altogether by fishing, having few bows and arrows among them, and scarcely any muskets. Even the young men have a singularly old and worn appearance, and they are generally speaking of smaller stature than their neighbours the "Nitteenats." At the back of Barclay Sound, on a small river, about two days' journey into the interior, live the only inland tribe whose existence is known of in Vancouver Island. They are called the "Upatse Satuch," and consist only of four families, the remainder having been killed by the Nanaimo Indians. The inhabitants of Barclay Sound have nothing among them worth trading for, except during the fishing season.

About 7 miles to the south-east of Barclay Sound, and between it and Cape Flattery, is a bay which has never yet been mentioned, called by the natives "Chadukutl." This bay is about 3 miles broad, and runs back a considerable distance. A rocky barrier runs across the entrance, leaving a channel only about 100 yards broad, which no vessel should attempt to enter for the first time without having an Indian pilot. At the upper end of the bay runs in a fine river, about 200 yards broad at the mouth, and there is a frontage of about 3 miles of fine level woodland, running apparently a considerable distance inland. The bay is about 8 miles deep, and its shores are inhabited by one tribe about 400 in number. The natives of Vancouver Island, on the south coast particularly, have a name for every point and promontory; these being the parts which present themselves most prominently to them as they coast along in their canoes. In Soke Harbour every little point to which a white man would not dream of giving a name has its separate appellation, and the names, as in Gaelic,

generally signify something either connected with the face of the country or with the tribe who inhabit it. In this habit of giving names to points, and leaving the indentures of the coast, or bays, without names, these savage aborigines present a remarkable contrast to the Arabs; who travelling on horseback, and by land, take notice principally of the valleys and places where they may procure water, passing the points of land unnoticed. Of this a striking instance may be seen in the nomenclature of the shores of the Dead Sea, where every "Wadi," or valley debouching into the indentations of the shore, has its name; whereas the neighbouring "Ras," or point projecting out into the sea, is often left without a name.

The next harbour north of Barclay Sound is Clayoquot, where there are established 3000 Indians, who are anxious to trade with the whites, but as yet none but Americans have been among them. A bar with from 4 to 6 fathoms on it runs across the entrance to the harbour. There is good anchorage inside, and shelter from all winds; the arm runs a considerable distance into the interior, but there is no open land that I am aware of, and the surface of the woodland is rocky and broken. Clayoquot is distant about 65 miles from Port St. Juan. From this northward to Nootka, there is no land along the sea-board that has the appearance of being available for any useful purpose. Nootka Sound is a large arm of the sea, containing several small sheltered harbours; there is no open land near it, and but little available woodland. The Indians are numerous and sometimes hostile; they seized an American vessel in the summer of 1852, but did not molest the crew.

At Nespod, a little north of Nootka, coal is reported by the Indians. Nespod is called Port Brooks on the charts.

At Koskeemo, north of Nespod, and opposite to Beaver Harbour, a seam of coal, 2 feet in thickness, has also been discovered, but neither from its situation or nature can it be worked to any advantage. There are three arms in Koskeemo, in either of which there is good shelter and anchorage for vessels. Immense quantities of fish are caught here by the Indians. Between Clayoquot and Nootka I omitted to mention Port San Raphael or Achosat, which is a bight of the sea, running inland 3 or 4 miles. There is no available land near it, the water is deep, but close into the inner end there is anchorage near the shore and good shelter.

From Koskeemo round the north to Beaver Harbour there is no land that we are aware of fit for purposes of colonization or settlement, the coast is rocky, though not high, and a vessel would do well to keep clear of it in winter. A very heavy sea is constantly running there, and there is no known harbour to which vessels can put in for shelter.

It will be thus seen that the most favourable places for settlement are to be met with only on the east and south coast; the west coast, north of Barclay Sound, has all a most unfavourable aspect, and even within Barclay Sound we have only Indian reports at present to trust to, for there being land of a nature fit for settlement.

The Indian population of the whole island is stated at 17,000; they are in general favourably disposed towards the whites, and with proper superintendence are capable of being made very useful; they all live by fishing, but take kindly to any kind of rough agricultural employment, though their labour is not generally to be depended on for any continued period.

The lands, at present surveyed by the Hudson Bay Company, are included in a line, which may be taken from Sanetch to Soke Harbours; the quantity of land surveyed in detail is 200 square miles, of which one-third is rock or unavailable, the remainder is principally woodland. The proportion of open land will be seen from the above remarks, where all that is known is mentioned, and bears a very small proportion to the woodland; but where it exists at all it is almost invariably rich; and the woodland, where it is at all level, is richer than the prairie ground, from the increased quantity of vegetable deposit.

5. *Vegetable Productions and Natural History.*

The Flora of Vancouver Island is poor, and no new varieties of plants have been discovered in the country. The open prairie-ground, as well as the patches of soil which are met with in the clefts of the hills, are principally covered with the camass, a small esculent root about the size of an onion, with a light-blue flower, the *Camassia esculenta* of botanists. The camass constitutes a favourite article of food with the savages, and they lay up large quantities of it for winter consumption, burying it in pits in the ground in the same way as they keep potatoes. This root has strong astringent qualities; the savages prepare it for food by digging large holes in the ground, throwing in hot stones, on top of the stones placing quantities of camass, and covering the whole up with sticks and mats until the root is sufficiently baked. The camass digging is a great season of "reunion" for the women of the various tribes, and answers with them to our hay-making or harvest home.

The *Gualtheria shallon*, called by the Canadians "salal," is, next to the camass, the most common plant in Vancouver's Island; it is a small shrub bearing a dark-blue berry, a little larger than the cranberry. The berry is very sweet and wholesome, and the savages are very fond of it; it is called by them *kungcholls*, and it generally grows on dry and poor soil.

The *Arbutus uva ursi* is another plant which abounds on the

low hills, and, as its name implies, together with the salal constitutes a favourite food of the bear; the leaves of it are dried by the natives and smoked in their pipes, mixed with tobacco, when they can get it; the mixture is not unpleasant to smoke, and acts slightly as an opiate.

In the marshy grounds in particular districts is found the *Equisetum hyemale*, or as the Canadians call it, "la Prele." This, in the scarcity of natural grasses, and in the absence of artificial substitutes, forms excellent food for the cattle in winter. They are very fond of it, and will desert their pastures and make paths of several miles through the woods to places where it is to be met with. Several varieties of *Campanula* and *Lupinus* are found in the woods and low grounds, and most fruits generally cultivated in Great Britain abound, both in the low lands and hill sides, wherever they can find any soil to support them. Among these may be mentioned the strawberry, black currant, gooseberry, and raspberry, a small variety of crab apple, and a small black wild cherry. It must not be omitted to mention that the potato is almost universally cultivated by all the savage tribes on the south of Vancouver Island, as well as on the opposite mainland. They have had this valuable root for a long time among them, but as it is never found except among tribes who have been at some time in the habit of trading with the whites, it is most probable that it has been introduced among them by early traders, and that it is not indigenous to the country; the qualities vary according to the nature of the soil; they are, however, generally speaking, of the kinds ordinarily cultivated in Europe, and of these are eight or nine varieties; the root generally is of a larger size than that attained by any potatoes cultivated in Europe. Potatoes and dried salmon form the staple food of all the natives who can procure them, the camass being by them considered more as a delicacy. They consume little animal food, being too lazy to hunt for it, except during winter, when they capture in nets and shoot great quantities of wild-fowl.

Two species of bear are found in the island, the black and brown; such of the natives as have muskets occasionally kill them, and bring their skins for barter to the Hudson's Bay Company; they are numerous in most parts of Vancouver's Island; the flesh of the bear is very coarse, and the foot is the only part of the animal, which, if well cooked, can be eaten with satisfaction by a white man, unless he be very hungry.

Of deer three species are to be met with, the *Cervus elaphus*, or elk, the *Lencurus*, or large white-tailed deer, and a smaller species of black-tailed deer. The flesh of the elk is good nourishing food, that of the other kinds of deer is tasteless and insipid, and contains but little nourishment.

Black and white wolves infest the thick woods, as also a small species of panther, but none of these are very numerous. Squirrels and minxes are found everywhere in great numbers, and both land and sea otters are occasionally to be met with; the latter is only found on the north coast of the island; the animal is generally from 4 to 8 feet long, reaching, however, sometimes to a length of 12 feet, and its fur is very soft and delicate, being by far the most valuable of that of any animal found on the north-west coast; it is generally of a jet black colour, though sometimes it has a slightly brownish tint. Signs of the beaver have occasionally been seen by old trappers on Vancouver Island, but the animal has never actually been met with. Altogether there are very few animals producing valuable furs on Vancouver Island, and I should conceive the value of the furs actually trapped and traded on the island cannot exceed 40*l.* per annum.

Of birds, they have the *Tetrao obscurus*; the male a beautiful bird of bluish colour, rather larger than the Scottish grouse; he has a loose outer throat like that of a turkey, of yellow colour, which he inflates when he utters his peculiar cry. This cry, something like that of an owl, is heard at a long distance; in uttering it while perched on one of the lofty fir-trees of the country, he frequently sounds his death knell, as the creeping savage, lured by the well-known sound, is guided by it, in his approach to his beautiful victim, whom, however, he never attempts to bag unless he sits quietly to receive him: the savage, although he has a very quick eye, never dreams of taking a flying shot at either bird, beast, or man.

Here is also another species of grouse, the *Tetrao Richardsonii*, and the drum partridge completes the varieties of feathered game. The *Obscurus* is found in the highest grounds like the ptarmigan of Scotland; the other two varieties frequent the low woods; none of them are found in numbers and it takes a very good shot, and a still better walker, to make up a game bag of three brace in a day.

Of small birds, there is the Mexican woodpecker, and a large misshapen species of bulfinch—note it has none; and indeed aves vocales may generally speaking be said never to be met with on the west coast of America. The settler in these parts misses equally the lively carol of the lark, the sweet cheerful note of the thrush, and the melancholy melody of the nightingale; still more will he of gentle mind, as he wends his solitary way through these distant wilds, feel impelled to hanker after the pleasures of society, and to long for the charm of conversation with the fair daughters of his country.

Of aquatic birds there is a vast variety. They have the Scaup duck, the *Anser Canadensis*, the golden eye, the common mallard, the teal, the crested grebe and numerous others. They completely

cover the lakes and inland salt-water lochs in winter, but altogether leave the country in summer. There is also a large species of crane which frequents the marshes and open ground, and furnishes "material" for capital soup if you can bag him; they are, however, very shy. A sportsman will also occasionally kick up a solitary snipe; these latter are, however, extremely rare and migratory; they are never met with except during a few days in the beginning of February.

There are several varieties of fir in the woods. There are the *Douglasii* (breve braccata) and the *Grandis*, which are the most common; the former furnishes material for excellent spars; the latter is a soft wood, very white, and open in the grain, it is difficult to season it, and, from the irregularity of its growth, is cross-grained, and does not make good timber. The *Canadensis*, the *Mitis*, and the *Alba*, which flourish well wherever there is any depth of soil, all make excellent timber, but are none of them adapted for finishing work. There is also the large red cedar of America, which grows into a noble tree; the *Abies nobilis*, and the *Cupressus thyoides*. The largest and most picturesque tree of the fir tribe in Vancouver Island is the *Nobilis*; it is not, however, often met with; growing only in rich alluvial bottoms, and in no place that I have seen conveniently situated for export. This tree sometimes reaches a height of 250 feet, with a circumference of 42 feet at the butt; the bark is from 8 to 14 inches thick. The white maple grows in all the low woodlands, and is abundant, but never reaches any great size. Wherever there is any open prairie land two kinds of oak, the *Quercus suber clavigata* and another similar species, somewhat darker in the bark and harder in the quality of the wood, are found; the quality of the wood of both these kinds of oak is hard and tough, and they are excellently adapted to form the knees and timbers for vessels; the trees, however, are small and scrubby, and hide their abashed heads before the towering *Coniferæ* by which they are surrounded. A large species of *Arbutus* grows on the sea-coast and on the banks of rivers; it grows to a height of from 30 to 40 feet, the bark is smooth and of a bright-red colour, the wood is hard and white and takes an excellent polish. Only one kind of pine has as yet been found on the island; the *Monticola*. I have only met with it near the source of the Soke River, and there in a position where it never could be made available for either use or export.

The above-mentioned kinds of fir all grow to a great height, from 150 to 200 feet and upwards, wherever the land is at all level, and where there is any depth of soil; generally speaking, however, the quality of the timber of Vancouver Island may be said to be of an inferior description, and, with the exception of the cedar, much more adapted for spars or piles, than for lumber or for any finishing work. To the spectator from the sea-board, the

island appears one mass of wood; by far the greater portion, however, of that wood which so pleases the distant eye is utterly worthless, as well from its nature as from its position. The trees, chiefly *Abies Douglasii* and *Grandis*, which form so impressing an appearance "en masse," when examined in detail prove to be mere crooked stunted scrubs full of knotty excrescences, and, except in the few lowlands previously mentioned, they grow on the sides and tops of rocky hills, where it is surprising that they can maintain their own footing, and from whence, owing to the singularly broken face of the country, they may wave defiance to the attempts of any engineer to dislodge them.

Among the natural productions of Vancouver Island the native hemp must not be omitted. Specimens have been sent to England, and on its quality being tested it was found to be superior to Russian hemp. There is no great quantity of it growing on the island, it being more properly speaking a natural production of the banks of Frazer River, on the opposite (British) mainland. There is, however, no doubt that it might be very extensively cultivated in Vancouver Island, and in its cultivation is probably the way in which, next to salmon fishing, the labour of the native population might be most profitably employed.

6. *Ethnology.*

The native population of Vancouver Island, which has been roughly estimated at 17,000, is chiefly composed of the following tribes:—

<i>North and East Coasts.</i> (In order in which they stand from North to South.)	<i>South Coast.</i> (In order in which they stand from East to West.)	<i>West Coast.</i> (In order in which they stand from South to North.)
Quackolls .. 1500	Tsomass .. 700	Nitteenats 1000
Newittees .. 500	Tsclallums .. 75	Chadukutl 500
Comuxes .. 400	Sokes 60	Oiatuch .. 100
Yukletas .. 500	Patcheena .. } 100	Toquatux .. 100
Suanaimuchs 600	Senatuch .. }	Schissatuch .. 200
Cowitchins .. 3000		Upatesatuch .. 25
Sanetchs .. 800		Cojuklesatuch 150
Other smaller tribes .. } 200		Uqluxlatuch .. 125
		Clayoquots 3000
		Nootkas 2000
		Nespods 100
		Koskeemos 800
		Other small tribes .. 465
7500	935	8565

Total 17,000

In the names of these tribes the "ch" is invariably pronounced as by the Scotch.

* Inhabitants of Upatseca, or Barclay Sound.

From the above list it will be seen that by far the most powerful tribes live on the west coast or on the outward sea-board of the island. Of these the Clayoquots are the most numerous and powerful; their sole intercourse with the whites hitherto has been carried on through the medium of Brother Jonathan, who for the last three or four years has been poaching on our preserves, and trading oil and salmon from the natives situated at a distance from British establishments. They (the Clayoquots) are, however, friendly disposed, and profess themselves extremely anxious to traffic with King George instead of with Boston, "which latter," say they, "cheat us amazingly." On a late occasion, when a British vessel, the *Lord Western*, was shipwrecked at Achosat, a little to the north of Clayoquot, the crew were treated in the kindest possible manner by the Clayoquots, who fed and took care of them, until a vessel was sent to their rescue. Of the above-mentioned tribes, the Comux and Yukletah fellows, being savage uncivilized dogs, are the only tribes on the north and east coast, amongst whom a boat's crew of half a dozen white men, if well armed, might not trust themselves alone. On the south coast the tribes are all perfectly friendly, and with the exception of the Patcheena Senatuch accustomed to daily intercourse with the whites. A single armed man may safely go alone among them. On the west coast, a small vessel on a trading expedition has nothing to fear from any tribe but the Nootkas, who are awkward customers and not to be trusted. Not long ago they took possession of a small Yankee vessel, which had gone in there to trade, seized the goods, and made prisoners of the crew, until they were ransomed by the crew of another vessel (also a Yankee) then trading with the Clayoquots. The tribes who have establishments of white men fixed among them are as follows: the Quackolls (Hudson Bay Company coal establishment, at Fort Rupert; which, however, will shortly be abandoned); Suanaimuch (Hudson Bay Company's Nanaimo coal mines); the Tsomass (Hudson Bay Company's factory of Victoria); and the Sokes (small settlement founded by author of this sketch).

The lands of the Sanetch, Tsomass, Tselallum, and Soke tribes have been purchased from them by the Hudson Bay Company in the name of the British Government, leaving to the natives only a few yards of ground reserved around the sites of their villages. The tribes were paid in blankets for their land; generally at the rate of a blanket to each head of a family, and two or three in addition to petty chiefs, according to their authority and importance. The quantities of blankets given to the various tribes were nearly as follows:—to the Tsomass or Sougass 500, to the Sanetch 300, to the Tselallum or Clellum and Soke Indians together about 150—total 950. The value of the blanket may be about 5s. in

England, to which if we add 100 per cent. profit, we have a value of 10s., or two dollars and a half nearly, as the price at which they were sold in the country in 1849-50, when the distribution was made:—1000 blankets at this rate does not seem a large price to pay to the aborigines for some 200 square miles of land, but it was fully an equivalent for what the land was or ever would have been worth to them.

Four distinct languages may be said to prevail among the natives of Vancouver Island, and these four principal languages are divided into a variety of dialects, so that each petty tribe speaks a patois of its own, almost, if not quite unintelligible to its nearest neighbours. From Cape Scott to Johnston Straits the northern or what may be called the Quackoll language prevails; from Johnston Straits to the Sanetch arm the eastern language is spoken, the base of which is the Cowitchin; from Sanetch to Soke, the Tscallum or Clellum language is used with very slight variations, the root of that language being that spoken by the Tscallums or Clellums, whose principal abode is on the American shore opposite to the southern coast of Vancouver Island, from which they probably originally invaded and peopled it; from Patcheena or Port St. Juan again we find another and totally different language, which extends thence with several varieties of dialect all along the western or outward sea-board, as far as Clayoquot; from whence to Cape Scott, a language similar to the Quackoll prevails. These four principal languages, the Quackoll or northern, Cowitchin or eastern, Tscallum or southern, and Macaw or western, are totally distinct from each other, both in sound, formation, and modes of expression. The Cowitchins and Tscallums can, however, understand each other occasionally, though with difficulty; the Macaws and Quackolls can neither understand each other, nor can they make themselves understood by any of the other tribes; the Macaw language is not unlike that spoken by the natives of the Columbia River.

A few of the numerals of the Macaws and Tscallums are subjoined with a view of showing how totally distinct the languages are from each other.

	1.	2.	3.	4.	5.	6.
Macaw or } Nitteenat	tsawak	akkle	chee	bo	kukkits	chechpatl
Tscallum	nitsa	chissa	chleuch	enoss	tlkatchis	tchun
	7.	8.	9.	10.	100.	
Nitteenat	atpo	atlasem	tsawasem	chluch	umbakkuttl	
Tscallum	tsokwas	tats	tukwh	oppen	nazowitch	

The other numerals are formed from these in the Tscallum language; in the Nitteenat, they merely say so many tens, &c., as Xleuchileha, 30; tatsilsha, 80, &c. No affinity has hitherto

been discovered between any of these languages, and any others spoken by the inhabitants of other parts of the world; and besides the languages above mentioned, there are hundreds of other varieties; along the north-west coast of America, every petty tribe generally speaking a dialect altogether peculiar to itself. Their habits, inasmuch as they all exist by fishing and pass the greater portion of their time in canoes, are nearly similar. Nearly all the above-mentioned tribes, as well as all others on the north-west coast, are at variance with each other, and annually indulge in petty wars and predatory expeditions for mutual annoyance, and for the purpose of procuring slaves. Their feuds are chiefly hereditary, but sometimes also spring out from an occurrence of the moment. Sometimes, though not always, two neighbouring tribes have made an alliance offensive and defensive with each other, and keep up their friendly state by annual meetings, and interchange of presents; this circle of amity however seldom extends beyond the two tribes nearest to each other, and sometimes the two nearest tribes are those which are in most deadly hostility to each other.

Slavery is common among all these savages, the prisoners of war being invariably either enslaved or decapitated. Wars however have become much less frequent among them since the arrival of the white man in these parts. Decapitation used previously to be a favourite amusement; they cut off the heads of the prisoners, and placed them on poles as ornaments in front of their villages, where they remained as long as wind and weather permitted. Generally speaking the natives of Vancouver Island, particularly of the southern portion, are by no means courageous: their character may be described as cruel, bloodthirsty, treacherous, and cowardly. They are ready to receive instruction, but are incapable of retaining any fixed idea. Religion they have none; they believe in no future state, neither had they, until some Jesuit missionaries came among them, any idea of a Supreme Being. They are, however, superstitious: they believe in the existence of spirits, and are much addicted to omens. Each tribe has its Tomannoas, or juggler, whose business it is to perform certain incantations when any one of the tribe is taken ill; these principally consist in performing various ridiculous antics, accompanied by singing and howling, not unlike the dancing dervishes of the East; the ceremony is accompanied with much noise, as the beating of boards, the knocking of sticks together, &c. Some of their ceremonies are of a disgusting nature; I think there is no design in any of them, nor anything worthy the inquiry of an ethnologist.

As will be seen from the foregoing list, by far the most numerous tribes are, with the exception of the Cowitchins, those which are situated on the western coast; the western tribes are also the finest

formed and tallest race of men, and as a general rule on both sides of the island, the farther north we go, the finer men we meet with, as well in form as in stature and in intelligence. The stature of the tribes on the south coast is diminutive, varying from 5 feet 3 inches to 5 feet 6 inches. Towards the north of the island among the Clayoquots and Quackolls, men are frequently to be met with of 5 feet 10 inches and over ; and still farther north, in Queen Charlotte Island, it is not unusual to see men upwards of 6 feet in height, and stout in proportion. There also savages are to be met with with lightish hair, and when well washed of almost a florid complexion. The colour of the hair of the natives of Vancouver Island is invariably either black or dark brown ; it is coarse and straight, and allowed to grow to its full length, falling over the neck, and forming not unfrequently the sole covering to the head of the savage in all weathers. Some few wear a hat shaped like a mushroom, or lampet shell-fish ; it is made of twisted cedar bark, or sometimes of hemp. Their features are those which generally characterize the North-American Indian—long nose, high cheek bones, large ugly mouth, very long eyes, and foreheads villanously low. The physical development of the upper part of their bodies is good ; they have broad shoulders, and deep well-developed chests. Their limbs are generally small and misshapen, probably from their being constantly in the habit of being so much cramped up in their canoes. Their only general dress is a blanket, made either of a coarse material woven by the women of the tribe from the wool of the white dogs, which are attached to every Indian encampment, and are annually shorn for the purpose, or in some cases it is made of the inner bark of the cedar, torn into small strips and plaited together, and trimmed with the fur of the sea or land otter. Some have no other covering but a bear-skin with their arms thrust through the arms of the skin ; all however who can, now clothe themselves in some portion of the European costume ; and of it, a shirt is considered quite sufficient to complete the toilette. The women were dressed precisely similar to the men, viz., wrapped in a dirty blanket, with the addition however of a killicoat suspended from the waist in front, like a Highlander's purse. This garment solely consisted of about seven narrow strips of red or blue cloth, or of cedar bark, about an inch broad, hanging loosely in front to about half way down the thigh, and joined together at the top by a piece of seaweed or of twisted cedar bark, by which they were bound round the waist. Now, both dames and demoiselles have, among most of the tribes, been enabled by trade or otherwise to adopt the chemisette and gown, made of navy blue cotton, in which they look sufficiently hideous objects. The women of Vancouver Island have seldom or ever good features ; they are almost invariably pug-nosed ; they have however frequently a pleasing expression, and

there is no lack of intelligence in their dark hazel eyes ; they are more apt to receive instruction than the other sex ; they are ready with the needle, naturally industrious in their habits, and of their own accord weave very ingenious patterns from the coarse materials above enumerated ; they perform all the cooking work, and cut up and dry the salmon caught by their savage helpmates ; where there are no slaves in the tribe or family they perform all the drudgery of bringing fire-wood, water &c. ; they take readily to the lighter portion of agricultural labours, in the service of the white man, and I make no doubt that with proper management, under well educated members of their own sex, who would take a pleasure in instructing them, a great and permanent improvement might be effected, both in their physical and in their moral condition.

The colour of the natives of Vancouver Island is a reddish brown, like that of a dirty copper kettle. The features of both sexes are very much disfigured by the singular custom prevalent among them, and among all nations between them and the Columbia, of flattening their heads. This is effected during infancy, when the child is a few weeks old, and while the skull is yet soft, by placing three or four pieces of the inner bark of the fir or cedar on the top of the forehead, and binding them tightly round the head : here they are left until the desired distortion has been thoroughly effected. This process completely flattens the forehead, and indeed flattens the whole front face ; the effect is hideous, and it is a question whether it does or does not interfere with the intellect of the child. I am inclined to think it does not, as the brain is not injured, though its position in the head is undoubtedly altered. This important process once over, an Indian baby is a most independent little fellow, and a happy individual withal, if we may judge by his scarcely ever being heard to cry or sob, or to express his grief in the many ways usually chosen by other mortal babies. Swathed in his covering of soft bark, and bound tightly up in an outer case or hammock of stronger bark, he is suspended by a hempen string to the extremity of one of the lower boughs of an overhanging fir or cedar tree ; and there, while his mother strays to a short distance through the woods in quest of roots or berries, the gentle zephyr rocks him to sleep, and sings to him a sweet lullaby, as it murmurs through the leaves of his natural bower. He is soon able to trot about, and to accompany his heedless parent, either in her woodland rambles, or as she scrambles over the rocks, or wades through the shallow water, seeking for the shell-fish which form a principal article of their food. As soon as able to hold the fish-spear and paddle he has them in his hand, and anon the father becomes his instructor, and teaches him to provide himself with the simple necessities of his life. They have no marriage ceremony, but as

soon as they arrive at the age of puberty, they take unto themselves a wife, if they can afford it, i.e., if their father can buy one for them ; and subsequently they add to this one, an unlimited number, according to the number of their blankets. Polygamy is prevalent ; generally speaking, however, it is only the chiefs of tribes, or heads of families, who have more than one fair one in their harems, and they sometimes have as many as eight or ten. The common men of a tribe, generally speaking, cannot afford to purchase more than one wife, and to her they not unfrequently become attached, from living constantly together, and paddling about in the same canoe, &c. The ordinary price of a wife is ten blankets and a musket ; chief's daughters, however, sell somewhat higher. Frequently little girls of 5 and 6 years old are bought up by intending fathers-in-law for a few beads, and brought up with the tribe into which they are bought, until fit for marriage, and consequently for sale by the old rascal who has bought them, to some of its members, at advanced prices.

All the savages of the north-west coast are great gamblers, and will stake their blankets, their canoes, and even their wives on the hazard of the turning up of one side or other of a piece of cut wood, which is their die. They have several games of chance, and in their natural state gambling may be said to be their prevailing vice. They are not Nomads, but have fixed habitations. Each tribe lives together, within a large palisaded enclosure, formed generally of stakes or young fir-trees, some 12 or 13 feet high, driven into the ground close together. These palisaded enclosures are sometimes 100 feet long by 20 broad, or larger or smaller according to the size of the tribe ; they are generally roofed-in with large slabs of fir or cedar, and in the inside, each family arrange their own mats, whereon to sleep ; these mats are made of cedar bark or of rushes plaited, and when they move on visits, or from one fishing station to another, they pack them in their canoes, and thus carry a complete house, in their own way, about with them ; some of the mats they fix up above them for shelter from the rain, and the remainder they place on the ground under them ; for a short time, these mats form a very good shelter from the weather. Nearly every savage possesses a bow of yew, and arrows tipped with jagged fish-bone ; the use of them, however, has been very generally supplanted among all the tribes by the muskets of the Hudson Bay Company, of which a great number are annually traded, and given as payment for labour. The bows they have are short ; when they fire they hold them horizontally, and they are not generally very expert in the use of this, their natural weapon. Fishing is their principal pastime, as well as their principal means of livelihood, and the salmon season, in the months of August and September, is their great annual jubilee : they catch the salmon

with nets, spears, and hook; the nets are square in shape, and made of the hemp grown on Frazer River; they sink them between two buoys on one side, and their canoe on the other, and placing them in the run of the fish, haul them up suddenly when they see a shoal passing over them. Their spears are of various kinds, the most common is a long stick, split into a fork at the bottom; others they have tipped either with barbed iron, or with jagged fish-bone: which tip being loosely bound on, but fastened otherwise to the shaft by a long string, comes off when a fish is struck, and allows it to play. Their hooks they get from the white man, and their line is made of a long coil of the root of sea-weed, or floating wrack.

In October and November the herrings frequent the bays in great numbers, and are caught by the natives with a long stick with crooked nails on it, with which they literally rake them into their canoes. The herring is precisely similar in quality to that caught on the west coast of Scotland, though somewhat smaller in size. There are seven different kinds of salmon; the general run of their size is about thirty to the barrel; some fish are, however, much larger, and indeed are as fine both in size and in quality as any salmon in the world; they are sometimes caught of a weight of 50 or 60 lbs.

Whales frequent the coasts during the ordinary seasons of bay-whaling in these seas. A few right whales are captured by the natives of the west coast, who attack them in several canoes at once, and fire them out, and so slaughter them, by driving into their bodies, whenever they appear above water, a number of darts with air-bladders attached; they tow the carcasses to the shore, and try out the oil into wooden tubs by means of heated stones. Whales, however, are not found in sufficient numbers on these coasts to induce a regular whaling vessel to come there in quest of them.

Whatever difference there may be in the languages of the various tribes of Vancouver Island, and however great their hostility one towards another, in one characteristic they almost universally agree, and that is, in the general filthiness of their habits. No pigstye could present a more filthy aspect than that afforded by the exterior of an Indian village; they are always situated close to the water-side, either on a harbour, or some sheltered nook of the sea-coast, or, as in the case of the Cowichins, on the banks of a river; they are generally placed on a high bank so as to be difficult of access to an attacking party, and their position is not unfrequently chosen, whether by chance or from taste, in the most picturesque sites. A few round holes, or sometimes low oblong holes or apertures in the palisades, generally not above three feet high, constitute their means of egress and ingress: they seldom move about much on terra firma, but after creeping out of

their holes at once launch their canoes and embark therein. A pile of cockle-shells, oyster-shells, fish-bones, pieces of putrid meat, old mats, pieces of rag, and dirt and filth of every description, the accumulation of generations, is seen in the front of every village; half-starved curs, cowardly and snappish, prowl about, occasionally howling; and the savage himself, notwithstanding his constant exposure to the weather, is but a moving mass covered with vermin of every description. Generally speaking, when not engaged in fishing, they pass the greater portion of their time in a sort of torpid state, lying inside beside their fires; the only people to be seen outside are a few old women cleaning their wool, or making baskets. Sometimes a group of determined gamblers are visible rattling their sticks, and occasionally some industrious old fellow mending his canoe—all the canoes being invariably hauled up on the beach in front of the village. The firing of a shot, or any unusual sound, will bring the whole crew out to gaze at you; they first wrap their blankets round them, and then sit down on their hunkers in a position peculiar to themselves; they are doubled up into the smallest possible compass, with their chin resting on their knees, and they look precisely like so many frogs crouched on the dunghill aforesaid. Most tribes, besides the main village, which is placed in some sheltered spot, have a fishing village, in a more exposed situation, to which they resort during summer, and the fishing grounds of some tribes extend to a distance of several miles from their fixed habitation. The Tsomass, for instance, have fisheries on Belle-Vue Island, some 15 miles distant from their winter village. And the Cowitchins and Sanetch both have fishing grounds at the mouth of Frazer River, on the opposite side of the Gulf of Georgia. To these fishing stations they emigrate in the salmon season, with their wives and families and all their goods and chattels, leaving their villages tenanted by merely a few old dogs, who fill the air with their doleful ululations, and either live by hunting during their masters' absence, or, as is more frequently the case, die of hunger.

Each tribe has a burying-ground chosen generally on some bare rock vis-à-vis to their villages; thither they carry their dead, and bury them in some square wooden boxes, on the top of which they place large heavy stones; they bury them in the crouched-up sitting posture which they generally occupy during life. A blanket is wrapped round them, and with them are buried all the valuables, bows, arrows, pots, kettles, knives, &c., which they possess while in this world; the boxes which contain the bodies are not imbedded in the ground, but are merely placed on the top of it, or on the rock, as may be, and covered with stones; there is generally some grotesque figure painted on the outside of the box, or roughly sculptured out of wood and placed by the side of it. For

some days after death the relations burn salmon or venison before the tomb: this, say they, is food for their departed brother, who would otherwise feel hunger. This, and the custom of burying the arms and goods of the deceased with him, would imply a belief in some species of future state: one thing is certain, their ideas of a future state are very vague, and they stand in no awe of it. I have stated somewhere above that they believe in no future state, because, notwithstanding some signs to the contrary, several natives of various tribes have expressly told me, as far as their own belief was concerned, that they did not believe in any such state, and that when a man was once killed the sum total of his race was numbered, or, as they expressed it, he was "hoy," i. e. finished. Others again, though comparatively few in number, will tell you, that all the men that a man kills go before him to be his slaves in the next world. The fact is they have no fixed idea on the subject, and each savage starts whatever theory harmonizes best with your manner of questioning him. The analogy which the rudely carved figures by the sides of their sepulchral boxes bear to our sculptured tombstones and monumental brasses, shows how great a similitude exists everywhere in the natural customs of the various races of the great family of man.

Almost the only interesting custom which prevails among the savage races of Vancouver Island is the fasting ceremony which precedes the reception of a youth among the "εφηβοί," or warriors of his tribe. For some days previous to this important event, he retires alone among the low hills near the sea-coast, and carries small stones up these hills, which stones he arranges in small circles on the top of them. If this ceremony has any meaning, which I much doubt, no white man has hitherto been able to fathom it. After having remained among the hills as long as hunger will allow him, generally from three to four days, the youth returns to his village, provides himself with a knife, and rushes up and down the village, brandishing the said knife, and wounding with it some of those who come in his way; he works himself up to a state of phrenzy, foams at the mouth, and after a time sinks exhausted. The Tomanous, or medicine-man of the tribe, then takes him in hand, and, after a short series of choral howling and rapping of sticks and paddles together, the young man is duly declared to be a man and a warrior, and to be fit to take his place at the council fire of his tribe. His father then takes measures to provide him with a wife, and presents him with a toga or blanket, in which he struts about with all the pride of newly acquired dignity. Hitherto his garments have been sufficiently easily supplied; generally, for the first four or five years, no addition is made to the provisions made by nature in that department, except such as smoke and dirt accumulate; by-and-bye a little shred is added from the

skirt probably of the parental garment ; perhaps after this a shirt may be coveted by the younker, but generally his clothing is somewhat precarious until, as aforesaid, the dignity of the toga is accorded.

The custom alluded to above is evidently merely the shell of some ancient usage, the pith of which has been lost (a fate common to most traditions) by the stupidity or forgetfulness of intermediate generations. The savages are chary of their information on the subject, and make a great secret and mystery of it ; probably, however, as in some more civilized secret associations, there is little more to impart beyond what is generally known.

A remarkable habit prevails among all the natives of Vancouver Island : they will never mention the name of a dead man after he is dead ; they consider it ill-omened to do so—i. e. one of their own tribe : everything that belonged to him also they consider unclean.

On the Columbia River, instead of the boxes above referred to, they use the deceased's canoe as a receptacle for his body in its final mundane resting-place ; these canoes are hung on the trees at certain sites all along the river ; they contain all the deceased warrior's valuables, together with his bow and fish-spear. Rum and the rifle have so well done their work in eradicating the aborigines of Oregon, that these lofty pine trees, with their ill-omened fruit, are now the sole evidence to be met with of the existence of upwards of 100 villages which formerly lined the banks of the Columbia. Two miserable tribes are now the sole occupants of the banks of the river for a distance of 250 miles from its mouth, and these two are now rapidly disappearing from the face of the earth, and making room for its occupation by their white brethren. It appears decreed that the white and red man are never to live in amity together ; the history of the colonization and settlement of every portion of North America is but a continued chronicle of forcible occupations ; it matters little whether the means employed be arms or negotiation, the poor savage is invariably in the end driven out of his patrimony, and the negotiation merely consists in the dictation of certain conditions by the more powerful, which the weaker has no choice but to accept ; and which conditions are violated by the invader whenever it suits his convenience, or whenever he wishes a more extended boundary. Hitherto, in Vancouver Island, the tribes who have principally been in intercourse with the white man, have found it for their interest to keep up that intercourse in amity for the purposes of trade, and the white adventurers have been so few in number, that they have not at all interfered with the ordinary pursuits of the natives. As the Colonial population increases, which, however, it is not likely to do very rapidly under the auspices of the

Hudson Bay Company, the red man will find his fisheries occupied, and his game, on which he depended for subsistence, killed by others: the fisheries will probably cause the first difficulty, as all the tribes are singularly jealous of their fishing privileges, and guard their rights with the strictness of a manorial preserve. Collisions will then doubtless take place, and the Tselallum and the Cowitchin will be numbered with the bygone braves of the Oneida and the Delaware.

The natural duration of life among the savages is not long, seldom exceeding fifty years; indeed a grey-haired man is very rarely seen; this may be partly accounted for by the horrible custom, universally prevalent, of the sons and relatives killing their parent when he is no longer able to support himself. Sometimes the wretches commit this parricide of their own accord unquestioned, but generally a council is held on the subject, at which the Tomanous or medicine-man presides. Should they decide that the further existence of the old man is not for the benefit of the tribe, the judges at once carry their own sentence into execution, and death is produced by strangulation by means of a cord of hemp or sea-weed. Not less horrible is the custom, very prevalent among the women, of endeavouring to extinguish life in the womb; from this and other causes premature births occur with great frequency. The object of the creatures would seem to be partly to save themselves from the pains of child-birth, and partly to avoid the trouble of bringing up a large family; from whatever reason it may be, the native Indian woman seldom becomes the mother of more than two, and very rarely indeed of more than three, little savages or savagesses, whilst, on the other hand, the half-bred woman is almost invariably extremely prolific.

The union of the white man with the North American savage has seldom if ever been attended with good results; the offspring invariably possess all the faults of the savage, rendered only the more acute by the admixture of some slight additional intelligence from the white parent; the men are passionate and vicious, the women stupid and ill-tempered, and instances are rare of either sex doing justice to the seeds of instruction which are plentifully scattered among them by missionaries of various persuasions.

The savages have a name for every flower, for every tree, and for every herb of the field; even the male and female of various plants are frequently distinguished by them by different denominations: to this knowledge of the names they hold an equally general knowledge of the uses to which the plants may be applied, and this knowledge they make use of not only in healing diseases, but in preparing and administering the most subtle poisons. An obnoxious member of a tribe is frequently carried away by means

of poison, and the employment of such means accords well with the cowardly, but at the same time cruel nature of the savage. Their code of justice is like that current "among them of old time—an eye for an eye and a tooth for a tooth." If blood is shed retribution is quickly called for, but the avenger's arm is speedily stayed by a gift of blankets; indeed, I have known instances where the head of a tribe summoned his band to demand vengeance for a murder committed by a neighbour on one of his humble dependants. The neighbouring chief, intimidated, offered to surrender the murderer to be dealt with as the avenger pleased: but no—that was not what he wanted—he had come expecting to receive blankets as compensation, and blankets he would have. Where, however, one of the chief's own family has been killed it is another affair, and blood must flow to quench the feud: sometimes base blood is accepted, and if so, an additional peace offering must be made. Not long ago the son of the Soke chief stabbed in anger a relative of the chief of the Tselallums of Chuchwaetsin; the man died of the injury, his compatriots made a great clamour, and swore that nothing but the life of the Soke chief and that of his son would satisfy them. Instead of the chief's son, a poor Ukletah slave was accepted as the propitiatory victim, and some canoes and blankets were thrown into the bargain. The miscreants carried their poor victim in triumph to Chuchwaetsin, among shouts and yells and the firing of guns and pistols; arrived at their village, they carried him from their canoe into their pallisaded enclosure, and there they kept him for two days bound on the ground, cramming just sufficient food down his throat to keep him alive. Having sufficiently enjoyed the poor creature's mental torture (for he knew he was to die, and the suspense must have been dreadful), they proceeded to the last act. Two men held him, while another cut his throat over a pail or tub, in which they caught and preserved the blood; the head was then severed from the body, and placed on a pole as an ornament in front of the village; the tragedy thus over, the savage brutes besmeared themselves with the blood of their victim, and conceived that they had done a great action; for some weeks afterwards they were in a great state of excitement, and daily painted themselves with the blood as long as it lasted.

In such transactions as these the real nature of the savage shows itself—experience has proved their nature to be indelible—can it then be wondered at that the civilized nations with whom they have been brought into contact have preferred their extirpation to any amalgamation with such truculent villains?

Amongst the peculiarities of the native tribes of Vancouver Island, it may not be amiss to allude to their national dances, which are of two kinds—one in which the whole tribe join, singing

as they dance, the other in which the performance is confined to two or three chosen individuals: in the former the performers arrange themselves in a circle, in the centre of which one or two foremen stalk by themselves; their business it is to lead the step and the chaunt; their dance is simply a jumping up and down, with both legs from the ground at the same time, which movement they accompany with an incontinent brandishing of arms (for when they dance, like the modern Highlanders, they are generally armed, though sometimes for the arms bunches of feathers are substituted). Sometimes the jumping is dispensed with, and the dance resolves itself into a mere waving of the body to and fro, keeping time to the monotonous chaunt, with which they accompany themselves. There are several various chaunts, but the dancing is in all cases much the same; these chaunts generally consist of five or six bars, varying but slightly from each other, they beat time in the middle of the bar. The chaunts are so arranged as to be made use of as paddle songs. When in their canoes they sing them frequently, keeping time to them by beating their paddles at each stroke against the sides of their canoes. Melody they have none, there is nothing soft, pleasing, or touching in their airs; they are not, however, without some degree of rude harmony, though it must be confessed that neither the music nor the dancing of these savages hath any charms whatever for the senses of civilized men. The dance and the chaunts are both somewhat similar to those in use among the modern Greeks. When these savages dance they are always painted either with black or vermilion; they do not paint their bodies, but only their faces; the women, besides painting their faces, draw a line of red down the centre of their head, where their hair is parted. Generally both men and women have the centre cartilage of the nose bored through, and a piece of the inside shell of the muscle fixed to it, with a piece of wire or string; the use of ear-rings of the same material is also common among them. Sometimes the women join in the dances, as mentioned above, but more generally they form a separate circle, and chaunt and jump by themselves. The second description of dance referred to is much more interesting. A small screen is hung up across the corner of a mat hut or palisaded enclosure; two fellows get behind it, and emerge on a signal being given by the master of the ceremonies; they are generally youths, they are not armed, but have bunches of feathers in their hands, their hair also being plentifully stuck with feathers, and their faces painted all over. Sometimes they wear a black mask. They first move round each other with a slow movement, something between a step and a crawl, chaunting the meanwhile, and accompanying their chaunt with occasional howls or whoops; the pace then quickens and is diversified by an occasional jump; one party acts the conqueror whilst the other

personates the vanquished, one pursues and the other retreats, the former waving his hands over the latter ; both move round in a circle, and as they occasionally turn and face each other, their movements are not destitute of a certain pantomimic grace. When they have nearly exhausted themselves, the master of the ceremonies, who has also been chaunting all the time, shouts out "Waklay," and the dancers then retire behind their screen to take breath for a fresh performance.

Although blankets now form the current coin among most of the tribes, previous to the advent of the white man they had a certain currency of their own, which currency still exists, and among the remote tribes forms the prevalent mode of exchange. The coins they made use of were the little oblong shells, about an inch long and two lines thick, found in the harbour of Clayoquot, and also in other bays along the north-west coast of the island ; these shells are sometimes made up into belts, sometimes into broad necklaces for the women ; they set a great value on them, and I conceive they are synonymous with the belts of wampum, made use of by the north-eastern and prairie nations.

These customs of presenting belts of wampum in token of friendship, and of electing a certain man in the tribe to the office of Tomanous or juggler, are the only two points of similarity which have occurred to me as existing between the savage of the north-west, and his red brother in the east.

The habit of tatooing the legs and arms is common to all the women of Vancouver Island ; the men do not adopt it.

All attempts to introduce the truths of the Christian religion among these savages have hitherto proved abortive. "Celui qui va planter les semences d'instruction dans le cœur sauvage, a choisi un terrain vraiment stéril," such was the remark made to me by Père Cheroux, a Jesuit priest, and he grounded his remark on reason and experience. The Cliketats, amongst whom his labours were wasted, are one of the most intelligent tribes of Oregon, living on a small tributary of the Columbia ; they have several traditions among them, none, however, of any value to the ethnologist, and they are in the habit of reciting fables, somewhat after the manner of *Æsop's* fables, of which the following may be taken as a specimen. "A fox, once upon a time, saw a kingfisher skimming over the water, and, ever and anon, barely touching the surface with its wings, and then rising again. I am a stronger animal than that bird, says the fox, and I think I am equally active ; I will, therefore, try whether I cannot perform the same feat. He accordingly takes a run, to give the greater impetus to his spring, and jumps upon the water ; but instead of skimming over the surface, he sinks to the bottom and is drowned." This, say they, is a sign that no one should attempt

an action which he is not qualified to perform. The moral, in short, answers with them to our "ne sutor ultra crepidam."

But to return: all efforts to convert these savages have been in the end unsuccessful. What Elliot and Brainherd could not permanently accomplish, other more recent and equally zealous missionaries have failed to effect; the savage breast seems incapable of entertaining any fixed idea; they lend a ready attention in the first instance to the exhortations of the missionary, but, like the seed which fell upon stony ground, it bears no fruit, and all that is learnt is never practised and is very soon forgotten. The efforts of Père Lamfrett, a priest of the order "Des Oblats de Marie," were unceasing;—at first he was all enthusiasm, "plus que je vois ces sauvages, plus je les aime," said he. The savages were amused with the pictures which he showed them illustrative of Holy Writ, and were somewhat pleased with the sacred songs which he taught them. Some of the Tsomass women learned without much difficulty to chaunt portions of the service of the Catholic Church, and he instituted among them the ceremonies of baptism and of marriage, without at all, however, making them comprehend the true nature of these institutions. When they found there was nothing to be made by their attention to his harangues, their attendance gradually flagged; and when the fishing season came, all his converts, male and female, evaporated, and preferred the pursuit of salmon to that of religion. On their return, they were more obdurate than ever; the charm of novelty had disappeared; disgusted, he declared that they were "gâtés par la compagnie," and determined to try his success among a tribe who had had less intercourse with the white man, and whose souls he fancied would not be so much absorbed in ideas of filthy lucre; he accordingly shifted his tent from among the Tsomass to the Cowitchins, a powerful nation who had the reputation of being great warriors, and who had very little commerce with the whites. They received him gladly, indeed he went among them at their own invitation, and they came with an escort of 20 canoes to fetch him. At first he progressed wonderfully; in two days he baptized upwards of 2000 of the tribe, and in a subsequent day he married 700 of them. At the close of the day the worthy Padre's hands were actually tired with the action of sprinkling the holy water. He thought he had discovered a taste for sculpture among them, and, with his religious instructions, he intended to teach them the fine arts, and to have schools which should rival those of Italy; he also intended to teach them to make bricks, and to cultivate the ground in the European manner. The poor Padre's hopes were, however, raised only to suffer a proportionate downfall; they listened with avidity only so long as he had a blanket or a fish-hook to give

them ; when his supplies were exhausted, so also was the patience of his hearers ; or, as he himself expressed it in the jargon, “ haelo iketa, haelo tilekum,” “ no goods, no men.” As had been the case with the Tsomass, so his Cowitchin converts could not withstand the temptations of the fishing season, and the month of August left him preceptor to only a few old women. Subsequently the Cowitchins, finding that he received no fresh supplies of goods to distribute among them, sent to the neighbouring chief factor of the Hudson Bay Company, to beg that he might be removed or otherwise they would kill him. Thus terminated Père Lamfrett's missionary campaign. He was a man full of zeal for the church, but during the whole time he was among the savages he never succeeded in eradicating any evil custom, or in introducing any new good one. It is true, for a time, he persuaded some of the chiefs who had a plurality of wives, to put away all except one ; he did not succeed, however, in many instances in effecting this at all, and when he did the benefit was questionable. E. g. : Freezy, a chief of the Tsomass, had two wives ; one old and a little passée, to whom he had been married several years, and by whom he had a family ; the other young and pretty, and to whom he had only been married a few weeks. On being told by the worthy Padre to put away one of his wives, which does he discard ? The latter one, to whom he could not be married, according to the law of the white man, having already been married (by the Padre) to the other ? Not a bit of it. He retains his fresh mistress ; and discards his old wife, the partner of his youth and the mother of his family. This is one of the many instances of the want of success of any attempt to cram religion red hot down the throats of the savages.

Some of the wretches will, from the hope of gain, affect an attention to the religion of the Christian, which they do not actually feel ; but I am convinced that no permanent impression has as yet been made on the savages of Vancouver Island, although a bishop of the Catholic Church, and three or four priests, some of them Jesuits, are constantly labouring in the good cause. One of these priests is of opinion that the Cowitchins worship the sun ; I think it however improbable that so grovelling a race should have chosen so noble an object of worship. The contemplation of almost any religious belief tends to expand the mind, and to elevate our nature by fixing a portion of our ideas upon more glorious objects than any contained in this world. Nothing can be more low, grovelling, and brutish than the ordinary ideas of a savage, as far as he gives them expression, they appear to act more from instinct than from reason ; there exists among them no traditional traces of any particular religious belief which has been held by their forefathers ; neither, beyond a few miserable superstitions, and a childish belief

in omens, have I been able to discover any signs of a belief in the interposition or supervision of a higher than mortal power. It will, I think, be conceded as matter of history, that the fruits, if any, of missionary labours in North America have perished with the labourers. If therefore the rapid spread of a doctrine be taken as evidence of the favourable interposition of the Deity in support of that doctrine, it perhaps is not illogical to conclude from the fact, that the blessing of success has not attended the labours of God-fearing, zealous, and intelligent men, in their constant endeavours, during a period of two centuries, to introduce the pure streams of Christian doctrine, amidst the muddy waters of savage unbelief; that, therefore, it may be the will of God, that these savages should remain in their unconverted state.

A nation of men without a religion appears to be an anomaly; still the experience of some years, among the north-western savages, has impressed me with the opinion that these beings have no religion; and that, for some inscrutably wise purpose, the Almighty Ruler of the Universe has decreed that they shall fulfil the daily course of their lives, with the laws of nature for their moral code, and with no higher motive of action than that which is furnished by the impulses of instinct.*

7. *Trade.*

Annexed is a statement of the trade of Vancouver Island during the year 1853. The number and tonnage of vessels is exact; the nature of the cargoes is also minutely specified; the values are a close approximation, if not quite exact. Vessels merely bought up generally sufficient to pay for their cargoes, either in goods or specie. All the trade bona fide with the Island has been between it and San Francisco, the cargoes of salmon exported in the Hudson Bay vessels to the Sandwich Islands having been from Frazer River. The fisheries all along the outer coast of the Island are no doubt excessively valuable; salmon abound in every inlet that I have mentioned, to an extent almost unknown in any other part of the world; herrings, also, are so numerous as to be caught by the natives with a sort of rake or long stick with crooked nails fastened on it. Cod has also been caught at the mouth of the straits and within them; also mackerel on the north of the Island.

There is a cod bank also in the Gulf of Georgia, near Nanaimo; and at Frazer River, in the short space of a fortnight, during August, the Hudson Bay Company put up about 2000 barrels of salt salmon. Hallibut and sturgeon are caught in large quanti-

* See also, 'Incidents of Travel in Vancouver Island;' by Paul Kane, Esq., of Toronto; in the Canadian Journal, July, 1855.—Ed.

ties by the natives, both off Cape Flattery and at Port St. Juan. The Sandwich Islands supply markets for fish to a limited extent, but San Francisco and the Spanish Main would consume any quantity that could be sent down to them, and fish in barrels might also profitably be exported to Australia.

The fisheries, coal, and timber undoubtedly form the principal resources of Vancouver Island, as its nature is not at all adapted to pastoral, and not to any extent for agricultural purposes; still a farmer, who thoroughly understood his business, and who possessed within his own family the means of labour, would undoubtedly do well there.

Wheat was selling at three dollars per bushel, butter one dollar per pound, and other produce in proportion. Piles are sold to the shipping at six cents per foot, squared timber at twelve cents; spars also fetch 12 cents without being squared, as they are difficult to get out of the woods.

In the annexed list of imports and exports (pages 312, 313), the cargoes of two vessels of the Hudson Bay Company, arrived from England, the *Norman Morrisson* and the *Otter*, are omitted, their value being unknown to me; as also the cargoes which the *Norman Morrisson* and *Mary Dare* took home to England. What they brought out, however, was principally supplies for their own servants, Victoria being a *depôt* for all their posts in the interior; and what they exported may be said to have been altogether the produce of these posts, and of the coasting voyages of the steamer *Beaver* along the mainland; they therefore can scarcely be included in the commerce of the Island.

8. *Opposite coast of North America.*

The mainland opposite Vancouver Island is much similar to it in appearance: the general aspect, if anything, is more forbidding. On Frazer River there is a considerable tract of low pasture land on either side, which might be made available for the breeding of cattle. There are some four square miles of open land in the neighbourhood of Fort Langley, which is situated some sixty miles up Frazer River, and there is also a tract of land, a few miles square, in the neighbourhood of Point Roberts, close to the boundary line. Along Thompson River, at a distance of about 200 miles from the sea coast, there is a magnificent extent of pasture land reaching along Thompson River; it may be said to extend from Frazer River to Lake Okanagan, at one of the sources of the Columbia River; this is the only fine tract of land as yet known on the British mainland in these regions. It may comprise some 300 miles, all of it nearly excellent open pasture; there are, however, no means yet known of getting to it, except up Frazer River, and from that up Thompson River. Thompson River

List of Importations and Exportations to and from Vancouver Island, with the Tonnage of the Vessels, and the approximate Value of the Cargo.

Date of Clearance.	Tonnage.	Name of Vessel.	Destination.	Import.	Export.	Value Imported, Dollars.	Value Exported, Dollars.
1853.							
Jan. 2	109	Beaver (Steamer)	Coasting	Specie	Ballast	..	..
" 13	252	Aurelia	Valparaiso .. .. .	.. .. .	Spars (16,000 feet)	1,000	1,500
" 13	13	Honolulu Packet	{ Soke and San Francisco	Merchandise and specie	Timber (2000)	4,500	500
" 14	75	Mary Taylor	cisco	Ditto	Oysters	1,000	500
" 14	180	Triumph	San Francisco	Ditto	{ Cranberries, salmon, lumber, and potatoes }	1,800	2,500
" 15	204	William	Ditto	Ditto	Coals and piles	2,000	1,800
" 15	148	Mary Dare	Nisqually	Cattle and horses	Merchandise	3,000	2,000
" 15	109	Beaver (Steamer)	Frazer River .. .. .	.. .. .	Salt, &c. .. .. .	..	1,000
" 15	184	Vancouver	Ditto .. .. .	.. .. .	Ballast .. .. .	..	..
Feb. 17	184	Ditto	Sandwich Isles .. ..	.. .. .	Salmon .. .. .	..	13,000
" 28	109	Beaver (Steamer)	{ Nanaimo, Vancouver Island	.. .. .	{ Merchandise for Hudson Bay Company .. .. }	..	..
" 28	45	Alice	Coasting .. .. .	.. .. .	Merchandise .. .. .	..	..
Mar. 8	109	Beaver (Steamer)	Ditto .. .. .	.. .. .	{ Furs and wool for Hudson Bay Company .. .. }	..	..
" 16	529	Norman Morrisson	London	{ Merchandise for Hudson Bay Company .. .. }	.. .. .	..	..
" 24	109	Beaver (Steamer)	Coasting .. .. .	.. .. .	Merchandise .. .. .	..	..
" 24	154	Recovery	Ditto .. .. .	.. .. .	{ Coal, salmon, and cranberries .. .. .	..	4,000
Apr. 9	148	Mary Dare	San Francisco .. ..	.. .. .	Merchandise .. .. .	..	..
" 9	75	Mary Taylor	Port Townsend .. ..	.. .. .	Merchandise .. .. .	..	..
" 23	75	Ditto	San Francisco	Specie	Salmon and oil	1,000	3,000
" 26	92	Honolulu Packet	Ditto	Ditto	Squared timber	500	500
May 17	184	Vancouver	Frazer River	Sugar and salt	Salt	10,000	1,000
June 17	184	Ditto	San Francisco .. ..	.. .. .	Coals and fish .. .. .	..	1,500
" 17	200	Rose	Ditto	Specie and merchandise	Piles and squared timber	3,000	1,100
" 22	74	Cadboro	Frazer River .. ..	.. .. .	Flour .. .. .	..	..
" 26	250	Joseph Warren ..	San Francisco	Specie and merchandise	Piles	2,000	1,400
" 27	45	Alice	Nisqually .. .. .	.. .. .	Merchandise .. .. .	..	..
July 4	204	William	San Francisco	Specie and merchandise	Piles	2,000	1,000
" 5	74	Cadboro	Coasting .. .. .	.. .. .	Merchandise .. .. .	..	..

runs into Frazer River, at a distance of about 200 miles from the sea coast. Along the Gulf of Georgia, opposite Vancouver Island, and within the numerous inlets which exist there, no available land is known. The natives, it is true, report large extents of open mountain pasture in the neighbourhood of Tchesatl or Jarvis Inlet, on which browse numbers of a species of large white goat with short straight horns. The extent of this open country, if it exist at all, must however be very limited, from what we can see of the configuration of the neighbouring country. Jarvis Inlet is situated nearly in latitude $49^{\circ} 50'$ and 50° north.

Between Burrard Canal and Home Sound, *i. e.* on the southern shore of Home Sound close to the entrance, a small seam of coal has been found, lying in sandstone; the sandstone strata are of considerable thickness, the quality of the stone is similar to the sandstone of Bellingham Bay, being hard, white, and close grained. No workable seam has as yet been discovered here, that which was seen having been only a few inches in thickness; it is very probable that further examination may lead to a discovery of the same seam of coal, underlying the superficial strata, as that which is found in Bellingham Bay. The coal-field of Bellingham Bay, which is within the American possessions, being about 20 miles south of the boundary line, is by far the most valuable deposit of coal which has as yet been discovered on the north-west coast; several seams have been seen cropping out of the surface, of a thickness varying from 6 inches to 16 feet: the largest, 16 feet in thickness, is a magnificent seam, the whole of it is sound workable coal even at the surface, and doubtless, as they follow the seam deeper, it will be found to improve in quality. A portion which had been taken from the surface (about 60 tons) had been carried to San Francisco, where it was found to burn well, and to be a strong coal for steam purposes, its power in evaporating water being considerable. This large seam lies between layers of very close grained light coloured sandstone; it crops out on the sea beach, and there is a good anchorage in $3\frac{1}{2}$ and 4 fathoms water close to it. The greatest objection to the working of the seam is the large angle of inclination at which it lies, it being inclined in a south-east direction with a dip of at least 45° . It was first discovered by two workmen who were felling logs for a neighbouring saw-mill. In passing a tree on the side of a bank which had been torn up by the roots, they noticed portions of coal adhering to the roots, and on further examination, under the roots which had been torn up, they found exposed the outcrop of this fine seam several feet in thickness. Being resolved to make the most of their discovery they lost no time in making the particulars public, and sent such glowing descriptions to San Francisco, accompanied by specimens of the coal, that a competition was immediately raised, and a

race ensued between two or three parties, who were anxious to arrive the first in the field. The claim was sold for some 10,000 dollars, but the parties who had bought it, Yankee-like, were merely speculators, and had neither money enough to pay for their purchase, nor to work the mine. Two or three bubble companies have since been formed, none of whom have as yet been able to bring the mine into practical operation.

Another Mining Company, called the Puget Sound Mining Association, was formed to work coal on an adjoining claim: they commenced two or three seams, the largest of which was about 4 feet in thickness; this however also was a bubble company, and from want of funds and of management were unable to carry on their business. They were upwards of four months loading a small brig. Altogether about 140 tons of coal had been exported from Bellingham Bay up to 1st January, 1854.

Bellingham Bay is one of the finest harbours within the Straits of Fuca; it is perfectly sheltered from all winds; there is good anchorage all over it in from 3 to 10 fathoms, and there is ample space to beat in and out.

A small river, called the Summy River, runs into it, up the banks of which there is some little rich alluvial soil thickly wooded. It is probable that the Summy is identical with the Samalkaman River, which takes its source near Lake Okanagan, and passes through a fine prairie country near its source. The land all round Bellingham Bay is poor and sandy; there are two small prairies, about a square mile each in extent, the remainder is thickly wooded with fir and cedar; a few scattered Yankees, about twenty in number, are settled round the bay, and some water-power in the south-east corner has been taken advantage of to put an excellent saw-mill, with two gangs of saws, in operation.

This locality has been mentioned as the probable terminus of the Great Western Railway across the Continent of America; this circumstance and its valuable coal deposits may make it a place of some importance; it is also a good fishing station; the nature of the soil, however, by which it is surrounded, and the very small extent of level land in the neighbourhood, forbid the probability of its ever being a flourishing agricultural settlement.

The American population of the neighbourhood of Admiralty Inlet and Puget Sound altogether is about 600. In the beginning of 1849 there was not a single American settler around the waters of Puget Sound: about that time the American Government sent a Company of Artillery there, to pave the way for settlement, and since then each year has added a few to the numbers of the settlers who flock in, both by the Overland route, across the Rocky Mountains, and also by sea from San Francisco; until now, in 1854, there may be about 600 who have come.

Admiralty Inlet is probably one of the most extensive inland arms of the sea in the world ; from the entrance of the Straits of Fuca, at Cape Classet, it may be said to be one vast sheltered harbour. Admiralty Inlet, however, properly speaking, including Puget Sound, which is at its southern extremity is about 90 miles in length : there is anchorage all over it at a depth of water seldom exceeding 30 fathoms ; there are several small harbours on most of which the Americans have commenced small villages, or as they call them cities ; the largest settlement is Olympia, consisting of log-houses, and containing some 300 inhabitants ; it is situated at the extremity of Puget Sound ; it is not well situated for trade, a large mud flat running out in front of it, which is left high and dry at low water ; no vessel of large draught of water can approach nearer than a distance of at least half a mile. There is but little prairie land in the neighbourhood of Olympia ; the whole probably will not exceed 300 acres.

Next in importance to Olympia comes Steilacoom. This is the locale where the military are stationed, to whom the guardianship of the northern portion of Washington territory is intrusted ; a few straggling log huts have sprung up around those which have been appropriated as barracks ; the soil is poor and shallow, the substratum is a cold clay overlying a mass of shingle several feet in thickness. At the back of Steilacoom is a tract of open prairie or grass land running with little interruption all the way back to the Cowlitz River ; its length may be about 75 miles, with a breadth varying from 1 to 3 miles ; the whole northern portion of it is very poor soil, and indeed is quite useless except for pastoral purposes. Here the Hudson Bay Company had their principal cattle and sheep establishment : their factory is at Nisqually, some 8 miles distant from Steilacoom. In 1849 they had here about 7000 head of cattle and sheep with some 600 horses ; the cattle had principally been driven overland from California, the original sheep had been imported from England, and the horses collected from the various savage tribes of the north-west ; they still keep up their establishment, which is superintended by Doctor Tolmie as well as circumstances will allow ; the Hudson Bay Company have, however, lost a great quantity of stock lately from want of sufficient hands to look after them. Brother Jonathan also takes a stray shot at them occasionally with his rifle, and has appropriated not a few in that and other ways. The wool from the sheep is annually exported to England. The Hudson Bay Company have a few acres of land under cultivation, but it produces little or nothing. The Americans are gradually closing round the Hudson Bay Company, and will no doubt eventually succeed in ousting them from this corner of their territory.

Besides Steilacoom there are two or three little American

villages along the shores of Puget Sound, one of which is called Scatl, another Newmarket : the population of all, including Steilacoom, does not probably exceed 150 souls. The soil all along the shore of Puget Sound is poor and gravelly, and there is little or no open land with the exception of the large prairie above mentioned. The pasturage is of an inferior quality, and altogether its capabilities as an agricultural settlement have been very much overrated.

A considerable trade in piles, squared timber, and lumber, is carried on with San Francisco, and altogether there are 16 saw-mills, steam and water, erected on the sound and its tributaries, including Hood Canal, Port Orchard, &c. There is magnificent water-power on the Nisqually River which Yankee Doodle has not been slow to take advantage of; generally speaking, however, the country is badly supplied with water-power, and indeed, except at Nisqually, at Bellingham Bay, and perhaps on the Sinahomish River, there is scarcely a stream to be met with capable of turning a mill-wheel, which runs all the year round.

Following round the western coast of Admiralty Inlet, we come to the entrance of Hood's Canal, a long inlet running several miles almost parallel with Admiralty Inlet, but diverging a little to the westward; no arable land has as yet been discovered in its neighbourhood; but there are two or three small settlements, and two steam saw mills constantly at work.

Next we come to Port Townsend, a fine harbour, at the entrance of which is another small American village, consisting of some 20 inhabitants. Here the foundation of a customhouse has been laid, and there are some 5 miles of rich prairie land in the neighbourhood. Port Townsend bids fair to be one of the most thriving little towns in the district.

Opposite Port Townsend is Whidbey's Island; an island of some 40 miles in length, by from 1 to 4 in breadth, lying in the centre of Admiralty Inlet nearly north and south; on it some 30 Americans are settled, there is a good deal of open prairie land, and the soil is superior to the generality of what is to be met with on the shores of Puget Sound; it is, however, cold and sandy, and the island is badly supplied with water; there is no good anchorage in any part of it, although vessels may find sheltered anchorages along the coast according to the direction of the wind. There are not above 10 acres under cultivation on Whidbey's Island. How the families settled here manage to exist is a perfect puzzle to an Englishman; indeed the subsistence of the American settlers all along Admiralty Inlet and Puget Sound is sufficiently precarious. Salt pork, salmon, and potatoes form their principal articles of diet. A few barrels of salmon are put up on Whidbey's Island in summer and sent to San Francisco; about 200 barrels are, however,

probably the extent of what has hitherto been exported. A singular phenomenon is to be observed on the western shore of Whidbey's Island: towards the southern extremity, smoke is seen issuing from the ground on the beach in front of a steep clay bank some 150 feet high; on examination all the clay around is found to be baked to the consistency and hardness of a brick and is reddened in colour; the ground for some distance is heated sometimes so as to be unbearable to the touch, at other times only slightly. I conceive that the smoke and heat must be caused by the combustion of some subterranean bed of coal to which water has been introduced. No coal has been discovered on Whidbey's Island; it is probably at some considerable distance under the surface. The shores of Whidbey's Island, as indeed of the whole of Puget Sound and Admiralty Inlet, are lined with the yellowish white clay cliffs peculiar to the country; it is seldom that any rocky substratum is apparent. At Nisqually the bed of coarse shingle which underlies the clay has been bored through to a depth of 150 feet without any rock being found. Sandstone strata occur on the southern coast of the Straits of Fuca, opposite to Vancouver Island, and coal is reported to have been discovered in the Valley de los Angeles on the Elwha River.

It is remarkable that strata of the coal formation, containing fossils precisely similar to those found in Vancouver Island and the opposite prairie land, as *Terebratula reticularis*, *Productus semireticulatus*, and *Spirifer striatus*, have been met with as far south as the latitude of 30° , and about 200 miles to the eastward of the Colorado River.

To return to the coast of Admiralty Inlet, some 10 miles to the north of Port Townsend is Port Discovery; this is another arm of the sea, affording good shelter for shipping; the water is deep and the shores broken and rugged; there is good land in the neighbourhood, and Port Discovery is merely valuable as a timber station; the wood in general is large and lofty, and suitable for masts and spars, as well as for piles and lumber; there are merely a few log huts on Port Discovery, where some ten people are employed with their oxen in hauling out spars and piles for the loading of vessels.

The next settlement we come to is Dungeness, which is nearly opposite to the south-east extremity of Vancouver Island. Dungeness is a roadstead sheltered from the west by a long shingly spit running out some 2 miles. At Dungeness some half dozen American families are congregated. The timber here is very fine; there are some 4 miles of prairie land in the neighbourhood, and there is a considerable extent of level woodland, the soil of which is a rich black vegetable mould. In process of time Dungeness may become a thriving little settlement; it can, how-

ever, never be an important station for shipping, as where there is shelter the water is very shallow, and vessels with a heavy draught of water cannot approach within $1\frac{1}{2}$ miles of the beach.

Between Dungeness and Cape Classet, the white man has not hitherto intruded on his red brother. There are no good harbours along this extent of coast, although there are two or three places, as the False Ness and Clallum Bay, where a vessel might find shelter from the west and south. Neeah Bay close to Cape Classet is the only anchorage worthy the name of a harbour: here a vessel may lie in safety sheltered from almost any winds.

The whole northern coast of Oregon, as far as it abuts on the Straits of Fuca, has an extremely inhospitable look. Snowy mountains, one of which rejoices in the name of Mount Olympus, rear their jagged peaks to a height of some 13,000 feet, and form a sufficiently picturesque coup-d'œil to the spectator as he views them from Vancouver Island. Between these and the sea, low rugged broken hills interpose a barrier to cultivation or settlement; no prairie land is to be met with. On the banks of the Elwha, however (opposite Bentinck Island), a considerable extent of rich alluvial soil thickly covered with woodland gratifies the eye of the explorer, and on some little clear patches there, where the substratum is a rich bluish clay, the natives cultivate the finest potatoes perhaps to be met with in any portion of the north-west coast.

It is said that a pass exists up the Val de los Angeles to the Chihuelas River and Shoalwater Bay, thus communicating with the Columbia Valley. The existence of such a pass is, however, very problematical, and the unbroken contour of the mountains gives no external indication of it.

Explorers in the Elwha country are recommended to be very careful of the natives, and on no account to go alone, or, if in company, unarmed. The author himself once got into serious difficulty with the Elwha tribe, having crossed over from Soke to obtain some of the *Equisetum hyemale*, which grows on the banks of their river, as fodder for his cattle during winter. They are a wild savage race, who are at war with all their neighbours, and not always unsuccessfully, as sundry ghastly trophies in front of their village indicate with horrible distinctness. The Elwhas are probably a branch of the Tscallums or Clellums, indeed they speak the same language.

With the exception of the Elwha country, the whole of the south coast of the Straits of Fuca is inhabited by Clellums, until we come to Neeah Bay, where the country is owned and inhabited by Macaws, who speak a totally different language.

It is a singular fact, that in each different tribe a different

physiognomy is clearly traceable ; the difference is slight among neighbouring tribes, and amounts to little more than the various shades in a family likeness ; a stranger might pass it over, but it is readily detected by the habitué of the country.

The above hastily written sketch will be found to contain a tolerably exact account of Vancouver Island, &c., as far as it is at present known ; the particulars given are all the results of personal observation, and the statistics may be depended on as tolerably accurate, if not precisely correct. It will be seen that Vancouver Island possesses in itself several resources, which, if developed by a free people, under free institutions, would tend to make it a very flourishing colony.

The high price of land, when equally good land can be got for one-fifth of the sum in Oregon, has prevented numbers of people from settling there, who were otherwise favourably inclined to do so.

In the spring of 1851, Mr. Blanchard came out as governor of the island ; he remained little more than a year, when he resigned, being in very bad health. His loss was very much to be regretted, as he was a gentleman in every way qualified to fulfil the duties of his position, with credit to himself and with prosperous results to the country over which he was appointed to preside. The present governor has been very successful in his management of the native tribes, whom it is his policy generally to conciliate ; on one occasion particularly, when one of the Cowitchin Indians had shot a white man, he thoroughly effected the object in view, that of punishing the guilty for the outrage committed, without causing any unnecessary bloodshed.

A prison also has been built of wood.

The examples of Oregon and of California furnish us with proofs that the rapid growth of new countries is best fostered by giving scope and encouragement to the exertions of individual enterprise, and the progress of a country will be founded on the surest basis when that country shall have been settled by bodies of independent freeholders accustomed to rely on themselves for support, and when the benefit of free institutions shall have given to each individual an interest in the general prosperity.
